

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: January 21, 2006, 21:31:01 ; Search time 109 Seconds
 Perfect score: 3131.118 Million cell updates/sec
 (without alignments)

Title: US-10-721-793-115

Sequence: 1 aaagacggttatctggaa.....cccttctaataaaggatgc 192

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 1.0

Searched: 1303057 seqs, 88780828 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
 Maximum Match 0%
 Listing First 45 summaries

Database : Issued_Patents_NA:*

1: /cgn2_6/ptodata/1/ina/1/COMB.seq:/*
 2: /cgn2_6/ptodata/1/ina/5_-COMB.seq:/*
 3: /cgn2_6/ptodata/1/ina/6_-COMB.seq:/*
 4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:/*
 5: /cgn2_6/ptodata/1/ina/H_COMB.seq:/*
 6: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:/*
 7: /cgn2_6/ptodata/1/ina/P COMB.seq:/*
 8: /cgn2_6/ptodata/1/ina/RB_COMB.seq:/*
 9: /cgn2_6/ptodata/1/ina/backfile..seq:/*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	121.4	63.2	301	3 US-09-053-021-3	Sequence 3, Appli
2	121.4	63.2	345	3 US-09-053-021-8	Sequence 8, Appli
3	35	18.2	243	3 US-09-599-632-11	Sequence 11, Appli
4	35	18.2	1664976	3 US-08-916-421B-1	Sequence 1, Appli
5	35	18.2	1664976	3 US-09-692-570-1	Sequence 1, Appli
6	32.4	16.9	3990	3 US-09-830-230A-629	Sequence 629, Appli
7	32.4	16.9	7766	3 US-09-125-619-3	Sequence 3, Appli
8	32.4	16.9	7766	3 US-10-222-566-3	Sequence 3, Appli
9	32.4	16.9	7766	3 US-10-143-024A-3	Sequence 3, Appli
10	32.4	16.9	7766	3 US-10-222-162-3	Sequence 3, Appli
C 11	32	16.7	601	3 US-09-949-016-17726	Sequence 17726, A
C 12	32	16.7	601	3 US-09-949-016-17727	Sequence 17727, A
C 13	32	16.7	601	3 US-09-949-016-46726	Sequence 46726, A
C 14	32	16.7	601	3 US-09-949-016-46727	Sequence 46727, A
C 15	32	16.7	2560	3 US-09-023-655-1285	Sequence 1285, AP
C 16	32	16.7	2578	3 US-09-949-016-1355	Sequence 1355, AP
C 17	32	16.7	2591	3 US-09-949-016-9	Sequence 9, Appli
C 18	32	16.7	40742	3 US-09-949-016-11751	Sequence 11751, A
C 19	32	16.7	40747	3 US-09-949-016-13097	Sequence 13097, A
C 20	31.6	16.5	1059	3 US-09-419-788-26	Sequence 26, Appli
C 21	31.4	16.4	8286	3 US-09-949-016-15170	Sequence 15170, A
C 22	31.4	16.4	16082	3 US-09-949-016-16220	Sequence 16220, A
C 23	31.4	16.4	1664976	3 US-08-916-421B-1	Sequence 1, Appli
C 24	31.4	16.4	1664976	3 US-09-692-570-1	Sequence 1, Appli

ALIGNMENTS

25	30.2	15.7	1100	3 US-09-710-279-1201	Sequence 1201, AP
C 27	30.2	15.7	3153	3 US-09-710-279-3441	Sequence 3441, AP
C 28	30	15.6	1329	3 US-09-248-796A-2713	Sequence 2713, AP
C 29	29.6	15.4	996	3 US-09-134-001C-2351	Sequence 2351, AP
30	29.6	15.4	4103	3 US-09-710-279-3332	Sequence 3332, AP
C 31	29.4	15.3	194	3 US-09-445-803-5	Sequence 5, Appli
C 32	29.2	15.2	3394	3 US-09-710-279-3229	Sequence 3229, AP
C 33	28.8	15.0	1293	3 US-09-248-796A-2701	Sequence 2701, AP
C 34	28.8	15.0	11921	3 US-09-596-002-40	Sequence 40, APP1
C 35	28.6	14.9	531	3 US-09-543-681A-2750	Sequence 2750, AP
C 36	28.6	14.9	3760	3 US-09-976-594-213	Sequence 213, APP1
C 37	28.6	14.9	49744	3 US-09-927-091-4	Sequence 4, Appli
C 38	28.4	14.8	267482	3 US-09-549-002-6559	Sequence 659, APP
C 39	28.4	14.8	267505	3 US-09-949-002-783	Sequence 783, APP
C 40	28.2	14.7	250	3 US-09-513-999C-19914	Sequence 19914, A
C 41	28	14.6	643	3 US-09-034-088A-27	Sequence 27, APP1
C 42	28	14.6	643	3 US-09-781-811-27	Sequence 27, APP1
C 43	27.8	14.5	363	3 US-09-134-000C-3109	Sequence 1309, AP
C 44	27.8	14.5	1960	3 US-08-595-937A-1	Sequence 1, Appli
C 45	27.8	14.5	2443	2 US-08-447-185-3	Sequence 3, Appli

LENGTH: 301 base pairs
 TYPE: nucleic acid
 STRANDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: cDNA
 ORIGINAL SOURCE:
 ORGANISM: Centruroides noxius Hoffman
 DEVELOPMENTAL STAGE: Adult
 IMMEDIATE SOURCE:
 LIBRARY: cDNA
 CLONE: CngE7V11
 FEATURE:
 NAME/KEY: big_peptide
 LOCATION: 1..39
 FEATURE:
 NAME/KEY: CDS
 LOCATION: 1..243
 FEATURE:
 NAME/KEY: mat_peptide
 LOCATION: 40..243
 US-09-053-021-3

Query Match Score 63.2%; Length 301;
 Best Local Similarity 80.0%; Pred. No. 4e-31; Length 301;
 Matches 156; Conservative 0; Mismatches 36; Indels 3; Gaps 1;

Qy	1	AAGGGCTTATCTGGGACGAG---ACGGGCTGCATAATACCTGGCGATATTGGA	57
Db	40	AAGGGAGGTATCTGGTGAACAGACCAACGGCTTAATAACAATGCTGATATTGGA	99
Qy	58	GAAACAAATACTGATAATGGGAATGCAATGGGAAAGCAGGAGGGTAAATTACGGCAT	117
Db	100	GAAACAAATACTGATAATGGGAATGCAATGGGAAAGCAGGAGGGTAAATTACGGCAT	159
Qy	118	TGCTTACGGATTGGGTGCTATTGGGAGGATTGGTCCGATAGTACCCGACTGGCCCT	177
Db	160	TGCTTACGGTTGCAAGTGCTGGTGGAGTTGGCGAAGTACCCGACTTATCCATT	219
Qy	178	TCTTAATAAAGATGC 192	
Db	220	CCTGGTAAACATGC 234	

RESULT 2
 US-09-053-021-3
 Sequence 8, Application US/09053021
 Patent No. 6270785

GENERAL INFORMATION:
 ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
 ADDRESSEE: Dunner, L.I.P.
 STREET: 1300 I Street, N.W.
 CITY: Washington
 STATE: DC
 ZIP: 20005
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/053, 021

TITLE OF INVENTION: Insecticidally Effective Toxins from scorpions of the
 TITLE OF INVENTION: Genus Centruroides
 NUMBER OF SEQUENCES: 9

CORRESPONDENCE ADDRESS:
 APPLICANT: SELIKO, Barbara
 APPLICANT: GARCIA-RODRIGUEZ, Consuelo
 APPLICANT: ZAMUDIO-ZUNIGA, Fernando
 APPLICANT: BRECRI-LUDAN, Baltazar
 APPLICANT: POESANI-POSTAY, Lourival D.
 TITLE OF INVENTION: Primary Sequence and cDNA of
 Patent No. 6270785

TITLE OF INVENTION: Insecticidally Effective Toxins from scorpions of the
 TITLE OF INVENTION: Genus Centruroides
 NUMBER OF SEQUENCES: 9

CORRESPONDENCE ADDRESS:
 APPLICANT: Herman, Rafael
 APPLICANT: Wong, James P.
 APPLICANT: Lee, Jian-Ming
 TITLE OF INVENTION: SCORPION TOXINS
 FILE REFERENCE: BH1375 US NA
 CURRENT APPLICATION NUMBER: US/09/599,632
 CURRENT FILING DATE: 2000-06-22
 PRIOR APPLICATION NUMBER: 60/140,410
 NUMBER OF SEQ ID NOS: 38
 SEQ ID NO 11
 SOFTWARE: Microsoft Office 97
 LENGTH: 243
 TYPE: DNA

FILING DATE:
 CLASSIFICATION:
 PRIORITY APPLICATION DATA:
 APPLICATION NUMBER: US 60/017,007
 FILING DATE: 30-APR-1996
 PRIORITY APPLICATION DATA:
 APPLICATION NUMBER: US 08/848,261
 FILING DATE: 29-APR-1997
 ATTORNEY/AGENT INFORMATION:
 NAME: Garrett, Arthur S.
 REGISTRATION NUMBER: 20..338
 REFERENCE/DOCKET NUMBER: 06899..0001-01000
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (202)408-4000
 TELEFAX: (202)408-4400
 INFORMATION FOR SEQ ID NO: 8:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 345 base pairs
 TYPE: nucleic acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: DNA (genomic)

FEATURE:
 NAME/KEY: CDS
 LOCATION: 1..243

FEATURE:
 NAME/KEY: sig_peptide
 LOCATION: 1..39

FEATURE:
 NAME/KEY: mat_Peptide
 LOCATION: 40..243
 US-09-053-021-8

Query Match Score 63.2%; Length 345;
 Best Local Similarity 80.0%; Pred. No. 4.e-31;
 Matches 156; Conservative 0; Mismatches 36; Indels 3; Gaps 1;

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Db	40	AAGGGAGGTATCTGGTGAACAGACCAACGGCTTAATAACAATGCTGATATTGGA	99
Qy	58	GAAACAAATACTGATAATGGGAATGCAATGGGAAAGCAGGAGGGTAAATTACGGCAT	117
Db	100	GAAACAAATACTGATAATGGGAATGCAATGGGAAAGCAGGAGGGTAAATTACGGCAT	159
Qy	118	TGCTTACGGATTGGGTGCTATTGGGAGGATTGGTCCGATAGTACCCGACTGGCCCT	177
Db	160	TGCTTACGGTTGCAAGTGCTGGTGGAGTTGGCGAAGTACCCGACTTATCCATT	219
Qy	178	TCTTAATAAAGATGC 192	
Db	220	CCTGGTAAACATGC 234	

RESULT 3
 US-09-599-632-11
 Sequence 11, Application US/09599632
 Patent No. 6768012

GENERAL INFORMATION:
 APPLICANT: Herman, Rafael
 APPLICANT: Wong, James P.
 APPLICANT: Lee, Jian-Ming
 TITLE OF INVENTION: SCORPION TOXINS
 FILE REFERENCE: BH1375 US NA
 CURRENT APPLICATION NUMBER: US/09/599,632
 CURRENT FILING DATE: 2000-06-22
 PRIOR APPLICATION NUMBER: 60/140,410
 NUMBER OF SEQ ID NOS: 38
 SEQ ID NO 11
 SOFTWARE: Microsoft Office 97
 LENGTH: 243
 TYPE: DNA

CURRENT FILING DATE: 2003-01-14
 / PRIORITY NUMBER: US 60/024,428
 / PRIORITY NUMBER: US 1996-08-22
 / PRIORITY NUMBER: US 08/916,421
 / NUMBER OF SEQ ID NOS: 20
 / SOFTWARE: PatentIn version 3.1
 / SEQ ID NO 1
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 / TYPE: DNA
 / ORGANISM: Methanococcus jannaschii
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 / NAME/KEY: misc_feature
 / LOCATION: (679466..679466)
 / GENERAL INFORMATION:
 / APPLICANT: Built et al.
 / TITLE OF INVENTION: Complete Genome Sequence of the Methanogen Archaeon, Methanococcus jannaschii
 / PATENT NO. 679466
 / TITLE OF INVENTION: Complete Genome Sequence of the Methanogen Archaeon, Methanococcus jannaschii
 / FILE REFERENCE: PR27SC1
 / CURRENT APPLICATION NUMBER: US/09/692,570

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FEATURE: misc feature
NAME/KEY: misc feature
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FEATURE: misc feature
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OTHER INFORMATION: n equals a, t, c, or g
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Best Local Similarity 56.5%; Pred. No. 1.7;
Matches 65; Conservative 0; Mismatches 50; Indels 0; Gaps 0;
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Db 210409 ATACAGTGTGGATTAACAGCTTACCTTGCAAGGTAAATAGCTGGATATTCTGGACCA 210468
Qy 63 CAAATCTGCAATAATGGGATGGCAATGGCAGGTTAACGGTATTCAGGTAT 117
Db 210469 TAACCCAGAAATGACATTTTATATGGAGTGTCTAGTATTCAGGT 210523

RESULT 6
US-09-830-230A-629
; Sequence 629, Application US/09830230A
; Patent No. 690293

GENERAL INFORMATION:
; APPLICANT: Human Genome Sciences, Inc.
; TITLE OF INVENTION: Lyme Disease vaccines
; FILE REFERENCE: PBA411US
; CURRENT APPLICATION NUMBER: US/09/830,230A
; CURRENT FILING DATE: 2001-09-27
; PRIOR APPLICATION NUMBER: PCT-US98/12718
; PRIOR FILING DATE: 1998-06-18
; PRIOR APPLICATION NUMBER: 60/057,483
; PRIOR FILING DATE: 1997-09-03
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; PRIOR APPLICATION NUMBER: 60/053,344
; PRIOR FILING DATE: 1997-07-22
; PRIOR APPLICATION NUMBER: 60/053,377
; PRIOR FILING DATE: 1997-07-22
; PRIOR APPLICATION NUMBER: 60/050,359
; PRIOR FILING DATE: 1997-06-20
; NUMBER OF SEQ ID NOS: 756
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO: 629
; LENGTH: 3990
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; ORGANISM: Homo sapiens
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; LOCATION: (1135)
; OTHER INFORMATION: R = A OR G
; FEATURE: misc_feature
; LOCATION: (1143)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE: misc_feature
; LOCATION: (1148)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE: misc_feature
; LOCATION: (1210)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE: misc_feature
; LOCATION: (1244)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE: misc_feature
; LOCATION: (1247)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE: misc_feature
; LOCATION: (1250)
; OTHER INFORMATION: n equals a,t,g, or c
; FEATURE: misc_feature
; LOCATION: (1251)
; OTHER INFORMATION: n equals a,t,g, or c
US-09-830-230A-629

Query Match 16.9%; Score 32.4; DB 3; Length 3990;
Best Local Similarity 54.1%; Pred. No. 1.2;
Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;
Software: PatentIn Ver. 2.1
Seq ID No 3
Length: 7766;
Type: DNA
Organism: Borrelia burgdorferi
Feature: modified_base
Name/Key: (127)
Location: OTHER INFORMATION: R = A OR G
US-09-125-619-3

Query Match 16.9%; Score 32.4; DB 3; Length 7766;
Best Local Similarity 54.1%; Pred. No. 1.5;
Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;
Software: PatentIn Ver. 2.1
Seq ID No 3
Length: 7766;
Type: DNA
Organism: Borrelia burgdorferi
Feature: modified_base
Name/Key: (127)
Location: OTHER INFORMATION: R = A OR G
US-09-125-619-3

RESULT 8
US-10-222-566-3
Sequence 3, Application US/10222566
; Patent No. 6719933
; GENERAL INFORMATION:
; APPLICANT: NORRIS, STEVEN J.
; APPLICANT: JING-REN, ZHANG
; APPLICANT: HARDHAM, JOHN M.
; APPLICANT: HOWELL, JERRILYN K.
; APPLICANT: BARBOUR, ALAN G.
; APPLICANT: WEINSTOCK, GEORGE M.
; TITLE OF INVENTION: VMP-LIKE SEQUENCES OF PATHOGENIC BORRELIA
; FILE REFERENCE: UTSH:2340ISD3
; CURRENT APPLICATION NUMBER: US/10/222,566
; CURRENT FILING DATE: 2002-08-16
; PRIORITY: 1999-01-27
; NUMBER OF SEQ ID NOS: 50
; Software: PatentIn Ver. 2.1
; Seq ID No 3
; Length: 7766
; Type: DNA
; Organism: Borrelia burgdorferi
; Feature: modified_base
; Name/Key: (127)
; Location: OTHER INFORMATION: R = A OR G
; US-10-222-566-3

Query Match 16.9%; Score 32.4; DB 3; Length 7766;
Best Local Similarity 54.1%; Pred. No. 1.5;
Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;
Software: PatentIn Ver. 2.1
Seq ID No 3
Length: 7766;
Type: DNA
Organism: Borrelia burgdorferi
Feature: modified_base
Name/Key: (127)
Location: OTHER INFORMATION: R = A OR G
US-10-222-566-3

RESULT 7
US-09-125-619-3
Sequence 3, Application US/09125619
; Patent No. 6437116
; GENERAL INFORMATION:
; APPLICANT: NORRIS, STEVEN J.
; APPLICANT: JING-REN, ZHANG
; APPLICANT: HARDHAM, JOHN M.
; APPLICANT: HOWELL, JERRILYN K.
; APPLICANT: BARBOUR, ALAN G.

Query Match 16.9%; Score 32.4; DB 3; Length 7766;
Best Local Similarity 54.1%; Pred. No. 1.5;
Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;
Software: PatentIn Ver. 2.1
Seq ID No 3
Length: 7766;
Type: DNA
Organism: Borrelia burgdorferi
Feature: modified_base
Name/Key: (127)
Location: OTHER INFORMATION: R = A OR G
US-09-125-619-3

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Db 4039 GGGATGAAAGGATGATCAGATTGCTGCTGTTGAGGGGATGGCTAAGGAT 4098
 Qy 149 TG 150
 Db 4099 GG 4100

RESULT 9
 US-10-143-024A-3
 Sequence 3, Application US/10143024A
 Patent No. 6740744

GENERAL INFORMATION:
 APPLICANT: NORRIS, STEVEN J.
 APPLICANT: JING-REN, ZHANG
 APPLICANT: HARDHAM, JOHN M.
 APPLICANT: HOWELL, JERRILYN K.
 APPLICANT: BARBOUR, ALAN G.
 APPLICANT: WEINSTOCK, GEORGE M.

TITLE OF INVENTION: VMP-LIKE SEQUENCES OF PATHOGENIC BORRELIA
 FILE REFERENCE: UTSB:23-AUD1

CURRENT APPLICATION NUMBER: US/10/143,024A
 CURRENT FILING DATE: 2002-08-23
 PRIOR APPLICATION NUMBER: 09/125,619
 PRIOR FILING DATE: 1999-01-27
 PRIOR APPLICATION NUMBER: PCT/US97/02952
 PRIOR FILING DATE: 1997-02-20
 PRIOR APPLICATION NUMBER: 60/012,028
 PRIOR FILING DATE: 1996-02-21
 NUMBER OF SEQ ID NOS: 50
 SEQ ID NO: 3
 LENGTH: 7766
 TYPE: DNA
 ORGANISM: Borrelia burgdorferi
 FEATURE: modified_base
 LOCATION: (127)
 OTHER INFORMATION: R = A OR G

US-10-143-024A-3

Query Match 16.9%; Score 32.4%; DB 3; Length 7766;
 Best Local Similarity 54.1%; Pred. No. 1.5;
 Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;

Qy 29 GCTGAAATAACACTGCTGATATTGGAGAAACAAATCTGCATAGGGATGACAT 88
 Db 3979 GCTAACAAATCCATGTGCTGCTATTGGATAATAGTGGATGGGATTGGTGTAT 4038

Qy 89 GCGAGCAACCGAGGAGTAATTACGGCTATTGGCTGAAGTATGGAAAGGAT 148
 Db 4039 GGGATGAGAAGGATGTCAGATTGCTGCTATTCGAGGGATGGCTAAGGAT 4098

Qy 149 TG 150
 Db 4099 GG 4100

RESULT 10
 US-10-222-1-62-3
 Sequence 3, Application US/10222162
 Patent No. 6878816

GENERAL INFORMATION:
 APPLICANT: NORRIS, STEVEN J.
 APPLICANT: JING-REN, ZHANG
 APPLICANT: HARDHAM, JOHN M.
 APPLICANT: HOWELL, JERRILYN K.
 APPLICANT: BARBOUR, ALAN G.
 APPLICANT: WEINSTOCK, GEORGE M.

TITLE OF INVENTION: VMP-LIKE SEQUENCES OF PATHOGENIC BORRELIA
 FILE REFERENCE: UTSB:23-AUD4
 CURRENT APPLICATION NUMBER: US/10/222,162
 CURRENT FILING DATE: 2002-08-16
 PRIOR APPLICATION NUMBER: 09/125,619

RESULT 12

; PRIOR FILING DATE: 1999-01-27
 ; NUMBER OF SEQ ID NOS: 50
 ; SOFTWARE: PatentIn Ver. 2.1
 ; LOCATION: (127)
 ; OTHER INFORMATION: R = A OR G
 US-10-222-1-62-3

Query Match 16.9%; Score 32.4%; DB 3; Length 7766;
 Best Local Similarity 54.1%; Pred. No. 1.5;
 Matches 66; Conservative 0; Mismatches 56; Indels 0; Gaps 0;

Qy 29 GCTGAAATAACACTGCTGATATTGGAGAAACAAATCTGCATAGGGATGACAT 88
 Db 3979 GCTAACAAATCCATGTGCTGCTATTGGATAATAGTGGATGGGATTGGTGTAT 4038

Qy 89 GCGAGCAACCGAGGAGTAATTACGGCTATTGGCTGAAGTATGGAAAGGAT 148
 Db 4039 GGGATGAGAAGGATGTCAGATTGCTGCTATTCGAGGGATGGCTAAGGAT 4098

Qy 149 TG 150
 Db 4099 GG 4100

Query Match 16.7%; Score 32.4%; DB 3; Length 601;
 Best Local Similarity 52.2%; Pred. No. 0.75;
 Matches 71; Conservative 0; Mismatches 65; Indels 0; Gaps 0;

Qy 38 ACACCTGCTGATATTGGAGAAACAAATCTGCATAGGGATGACATGGAGGCC 97
 Db 190 AGACAGACTGAAATTGGCATGAAATATTTGGGAGATGTAATAGCGCACA 131

Qy 98 GAGCGGGTAAATTACGGCTATTGGCTGAAGTATGGAAAGTATGGTGTGCGATA 157
 Db 130 AAGGGTCCACAGTCCTTGAGTAGGATTTGGCTGCTGGGGTGTGGGG 71

Qy 158 GTACGCCGACTTGGCC 173
 Db 70 GTGGACCGAATTGGCC 55

US-09-949-016-17727/c
; Sequence 17727, Application US/09949016
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO: 17727
; LENGTH: 601
; TYPE: DNA
; ORGANISM: Human
; US-09-949-016-17727

Query Match 16.7%; Score 32; DB 3; Length 601;
Best Local Similarity 52.2%; Pred. No. 0.75%; Indels 0; Gaps 0;
Matches 71; Conservative 0; Mismatches 65; Length 601;

Qy 38 ACATTCCTGGATAATTGGAGAAAATAACTGCATAATGGAAATCACAATGGAGACC 97
Db 266 AGACAGACTGAAATTGGGTGAAATAATTGGGGGGTAGAATAGCCACA 207

Qy 98 GAGGAGTTAAATTACGGCTATTGCTACGGATTGGGTCAATTGGGAAGGATTGGCGATA 157
Db 206 AAGGGTCAACAGCTTCTTGATGAGCTTGGTAGACATTGGTAGCTGGTGTGGG 147

Qy 158 GTACACCGACTGGCC 173
Db 146 GTGGACCGAAATTGGC 131

RESULT 13
US-09-949-016-46726/c
; Sequence 46726, Application US/09949016
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO: 46726
; LENGTH: 601
; TYPE: DNA
; ORGANISM: Human
; US-09-949-016-46726

Query Match 16.7%; Score 32; DB 3; Length 601;
Best Local Similarity 52.2%; Pred. No. 0.75%; Indels 0; Gaps 0;
Matches 71; Conservative 0; Mismatches 65; Length 601;

Qy 38 ACATTCCTGGATAATTGGAGAAAATAACTGCATAATGGAAATCACAATGGAGACC 97
Db 190 AGACAGACTGAAATTGGGTGAAATAATTGGGGGGTAGAATAGCCACA 131

RESULT 14
US-09-949-016-46727/c
; Sequence 46727, Application US/09949016
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO: 46727
; LENGTH: 601
; TYPE: DNA
; ORGANISM: Human
; US-09-949-016-46727

Query Match 16.7%; Score 32; DB 3; Length 601;
Best Local Similarity 52.2%; Pred. No. 0.75%; Indels 65; Length 601;
Matches 71; Conservative 0; Mismatches 65; Length 601;

Qy 38 ACACATGGCTGATATTGGGGAAACAAATACTGCATAATGGAAATCACAATGGAGACC 97
Db 266 AGACAGACTGAAATTGGGTGAAATAATTGGGGGGTAGAATAGCCACA 207

Qy 98 GAGGAGTTAAATTACGGCTATTGCTACGGATTGGGTCAATTGGGAAGGATTGGCGATA 157
Db 206 AAGGGTCAACAGCTTCTTGATGAGCTTGGTAGACATTGGTAGCTGGTGTGGG 147

Qy 158 GTACACCGACTGGCC 173
Db 146 GTGGACCGAAATTGGC 131

RESULT 15
US-09-023-655-1285
; Sequence 1285, Application US/09023655
; GENERAL INFORMATION:
; APPLICANT: Cocks, Benjamin G.
; APPLICANT: Susan G. Stewart
; APPLICANT: Jeffrey J. Seilhamer
; TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE EXPRESSION
; NUMBER OF SEQUENCES: 1508
; CORRESPONDENCE ADDRESS:
; ADDRESSE: INCYTE PHARMACEUTICALS, INC.
; STREET: 3114 PORTER DRIVE
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC Compatible

OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/023, 655
FILING DATE: HEREWITH
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37, 071
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1285:
SEQUENCE CHARACTERISTICS:
LENGTH: 2560 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GENBANK
CLONE: 9312466
us-09-023-655-1285

Query Match 16.7%; Score 32; DB 3; Length 2560;
Best Local Similarity 52.2%; Pred. No. 1.3;
Matches 71; Conservative 0; Mismatches 65; Indels 0; Gaps 0;
Qy 38 AGACATTCGTGATAATTCGGAGAAAAACAAATACTGCATAATGGGAATCCATGGAAGCACC 97
Db 2339 AGCAGACTGAAATTGCGATGAAATAATTTTAGGGGGATGTAATAGCCCA 2398
Qy 98 GCGGAGGTAATTAACGGCTATTCGCTACGGATTGGTCTATGGAGGATGTCGATA 157
Db 2399 AAGGGCTCAACAGCTTGTAGGCGATTGGTAGAAGCTGGGGTGTGTGGGG 2458
Qy 158 GTACACCCGACTTGCC 173
Db 2459 GTGGACCCAAATTGGC 2474

Search completed: January 22, 2006, 00:36:27
Job time : 113 secs

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4 nucleic - nucleic search, using sw model

run on: January 21, 2006, 21:36:26 ; Search time 224 Seconds
(without alignments)

706.520 Million cell updates/sec

line:	US-10-721-793-115	perfect score: 192	sequence: aaaggcggttatcgttggaa.....ccccctttctataaaaagatgc 192
scoring table:	IDENTITY_NUC	Gapop 10.0 , Gapext 1.0	
searched:	6049916 seqs,	412136615 residues	
total number of hits satisfying chosen parameters:	12099832		
minimum DB seq length:	0		
maximum DB seq length:	2000000000		
post-processing:	Minimum Match 0%		
	Maximum Match 100%		
	Listing first 45 summaries		

RESULT 1

US-10-721-793-115

Published Applications NA New:
 1: /cgn2_6/podata/1/pubna/us08_new_pub_seq;
 2: /cgn2_6/podata/1/pubna/us06_new_pub_seq;
 3: /cgn2_6/podata/1/pubna/us07_new_pub_seq;
 4: /cgn2_6/podata/1/pubna/pct_new_pub_seq;
 5: /cgn2_6/podata/1/pubna/us09_new_pub_seq;
 6: /cgn2_6/podata/1/pubna/us10_new_pub_seq;
 7: /cgn2_6/podata/1/pubna/us10_new_pub_seq;
 8: /cgn2_6/podata/1/pubna/us11_new_pub_seq;
 9: /cgn2_6/podata/1/pubna/us11_new_pub_seq;
 10: /cgn2_6/podata/1/pubna/us11_new_pub_seq;
 11: /cgn2_6/podata/1/pubna/us06_new_pub_seq;

database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

result No.	Score	Query	Match	Length	DB ID	Description	
1	30.8	16.0	3493	7	US-10-750-185-56579	Sequence 56579, A	
2	30.8	16.0	3493	7	US-10-750-623-55579	Sequence 56579, A	
3	20.2	15.7	1100	7	US-10-793-626-1201	Sequence 1201, Ap	
4	30.2	15.7	3153	7	US-10-793-326-3441	Sequence 3441, Ap	
5	29.8	15.5	2515	7	US-10-750-185-52777	Sequence 52777, A	
6	29.8	15.5	2515	7	US-10-750-623-52777	Sequence 52777, A	
7	29.6	15.4	4103	7	US-10-793-626-3332	Sequence 3532, Ap	
8	29.2	15.2	3394	7	US-10-793-626-3629	Sequence 3629, Ap	
9	29	15.1	1232	7	US-10-750-185-31353	Sequence 31353, A	
10	29	15.1	1232	7	US-10-750-623-31353	Sequence 31353, A	
11	28.8	15.0	1764	7	US-10-750-185-41036	Sequence 41036, A	
12	28.8	15.0	1764	7	US-10-750-623-41036	Sequence 41036, A	
13	28.2	14.7	1002	7	US-10-750-185-56668	Sequence 54668, A	
14	28.2	14.7	1002	7	US-10-750-623-54668	Sequence 54668, A	
15	28	14.6	1272	7	US-10-750-185-57766	Sequence 57766, A	
16	28	14.6	1272	7	US-10-750-623-57766	Sequence 57766, A	
17	28	14.6	175023	8	US-11-121-006-18	Sequence 18, Appl	
18	27.8	14.5	2139	7	US-10-121-234-596	Sequence 596, App	
19	27.8	14.5	2529	8	US-11-136-527-3182	Sequence 3182, Ap	
20	27.8	14.5	24774	7	US-10-029-826B-53	Sequence 53, Appl	
c	21	27.8	14.5	289206	7	US-10-029-826B-46	Sequence 56, Appl
c	22	27.8	14.5	289206	7	US-10-029-826B-56	Sequence 56, Appl

RESULT 2

US-10-750-623-56579

Query Match Score 30.8; DB 7; Length 3493;
 Best Local Similarity 52.3%; Pred. No. 1;
 Matches 68; Conservative 0; Mismatches 62; Indels 0; Gaps 0

Qy 30 CTGCAAATACAGTCCTGGATAATTGGAGAAAATCTGCATAGCGATG 89
 US-10-750-185-56579

Query Match Score 16.0%; DB 8; Length 3493;
 Best Local Similarity 52.3%; Pred. No. 1;
 Matches 68; Conservative 0; Mismatches 62; Indels 0; Gaps 0

Qy 778 CTTAAAGAACATGATCATGTAAAGGGAAATCTCAATTCAATTGCGATG 83

Qy 90 GAAGCAGCGGGAGTATTACGGCTATGCTACGGATTGGCTATGGCAGGATT 141

Db 838 CTTAGAAGAAAACAAATACATATATAATCAGTTAGTCAGTGCTCGTGGT 89

Qy 150 GTCCGATAGT 159

Db 898 GTCCGACTGT 907

Sequence 56579, Application US/10750623
; Publication No. US20050287531A1
; GENERAL INFORMATION:
; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFIELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
; FILE REFERENCE: MM1100-1
; CURRENT APPLICATION NUMBER: US/10/750,623
; CURRENT FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 60/437,482
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIN version 3.1
; SEQ ID NO: 56579
; LENGTH: 3493
; TYPE: DNA
; ORGANISM: Bovine 19866880937875
; US-10-750-623-56579

Query Match Similarity 16.0%; Score 30.8%; DB 7; Length 3493;
Best Local Similarity 52.3%; Pred. No. 1;
Matches 66; Conservative 0; Mismatches 62; Indels 0; Gaps 0;

Qy 30 CTGCAATACTACATTGTGGATATTGGGAAACAAATACTGCCAATAGGAATGCCATG 89
Db 778 CTTAAAACAAATGATCATGTATGTTAAAGGAAATTCATCAATTTCATTTGCATG 837

Qy 90 GAAGCACCAGGGTAACTAGGGTATGTCAGGTTATGGGTCTATTCGGAGGATT 149
Db 838 CTTAGAAAGAAACAAATACATCATATAATAATCAGTTAGTTCAAGTGCTCAGTGGT 897

Qy 150 GTCCGATAGT 159
Db 898 GTCCGATGT 907

RESULT 3
US-10-793-626-1201
; Sequence 1201, Application US/10793626
; Publication No. US20050255478A1
; GENERAL INFORMATION:
; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PU3480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO: 1201
; LENGTH: 1100
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: nucleic acid sequence

Query Match Similarity 15.7%; Score 30.2%; DB 7; Length 1100;
Best Local Similarity 52.8%; Pred. No. 1;
Matches 65; Conservative 0; Mismatches 58; Indels 0; Gaps 0;

Qy 29 GCTGCAATACTACATTGTGGATATTGGGAAACAAATACTGCCAATAGGAATGCCATG 88
Db 310 GCTGAAAAACAAATCTATGTTAGGTACTGGCATGTAATGCTAA 369

Qy 89 GGAAGCACCGAGGTTAACTACGGCTATGGCTAGGATTGGGTCTATTGGCAAGGAT 148
Db 728 GTACCTTTCGAATGCCAATCAAGCTTAATCTTAAGTTAAAGCTTAAATCTAAGTAA 669

RESULT 4
US-10-793-626-3441/c
; Sequence 3441, Application US/10793626
; Publication No. US2005025578A1
; GENERAL INFORMATION:
; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PU3480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO: 3441
; LENGTH: 3153
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: nucleic acid sequence

Query Match Similarity 15.7%; Score 30.2%; DB 7; Length 3153;
Best Local Similarity 52.8%; Pred. No. 1.6;
Matches 65; Conservative 0; Mismatches 58; Indels 0; Gaps 0;

Qy 29 GCTGCAATACTACATTGTGGATATTGGGAAACAAATACTGCCAATAGGAATGCCATG 88
Db 788 GCTGAAAAACAAATCTATGGPATTGCCCCATGGATGTAATGCTAAATGATCAA 729

Qy 89 GGAAGCACCGAGGTTAACTACGGCTATGGCTAGGATTGGGTCTATTGGCAAGGAT 148
Db 728 GTACCTTTCGAATGCCAATCAAGCTTAATCTTAAGTTAAAGCTTAAATCTAAGTAA 669

RESULT 5
US-10-750-185-52777
; Sequence 5277, Application US/10750185
; Publication No. US2005026003A1
; GENERAL INFORMATION:
; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFIELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: FANTIN, Dennis
; TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
; FILE REFERENCE: MM1100-2
; CURRENT APPLICATION NUMBER: US/10/750,185
; CURRENT FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 60/437,482
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO: 5277
; LENGTH: 2815
; TYPE: DNA
; ORGANISM: Bovine 19866880359186
; US-10-750-185-52777

Query Match Similarity 15.7%; Score 30.2%; DB 7; Length 1100;
Best Local Similarity 52.8%; Pred. No. 1;
Matches 65; Conservative 0; Mismatches 58; Indels 0; Gaps 0;

Qy 29 GCTGCAATACTACATTGTGGATATTGGGAAACAAATACTGCCAATAGGAATGCCATG 88
Db 310 GCTGAAAAACAAATCTATGTTAGGTACTGGCATGTAATGCTAA 369

Qy 89 GGAAGCACCGAGGTTAACTACGGCTATGGCTAGGATTGGGTCTATTGGCAAGGAT 148

Query Match 15.5%; Score 29.8; DB 7; Length 2515;
 Best Local Similarity 60.5%; Pred. No. 2;
 Matches 49; Conservative 0; Mismatches 32; Indels 0; Gaps 0;
 APPLICANT: DENISE, Sue K.
 APPLICANT: KERR, Richard
 APPLICANT: ROSENFIELD, David
 APPLICANT: HOLM, Tom
 APPLICANT: BATES, Stephen
 APPLICANT: FANTIN, Dennis
 TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERMING BOVINE TRAITS
 FILE REFERENCE: MM1100-1
 CURRENT APPLICATION NUMBER: US/10/750,623
 CURRENT FILING DATE: 2003-12-31
 PRIOR APPLICATION NUMBER: US 60/437,482
 PRIOR FILING DATE: 2002-12-31.
 NUMBER OF SEQ ID NOS: 64922
 SOFTWARE: PatentIN version 3.1
 SEQ ID NO: 52777
 LENGTH: 2515
 TYPE: DNA
 ORGANISM: Bovine 19866880359186
 US-10-750-623-52777

Query Match 15.5%; Score 29.8; DB 7; Length 2515;
 Best Local Similarity 60.5%; Pred. No. 2;
 Matches 49; Conservative 0; Mismatches 32; Indels 0; Gaps 0;
 APPLICANT: DENISE, Sue K.
 APPLICANT: KERR, Richard
 APPLICANT: ROSENFIELD, David
 APPLICANT: HOLM, Tom
 APPLICANT: BATES, Stephen
 APPLICANT: FANTIN, Dennis
 TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERMING BOVINE TRAITS
 FILE REFERENCE: MM1100-1
 CURRENT APPLICATION NUMBER: US/10/750,623
 CURRENT FILING DATE: 2003-12-31
 PRIOR APPLICATION NUMBER: US 60/437,482
 PRIOR FILING DATE: 2002-12-31.
 NUMBER OF SEQ ID NOS: 64922
 SOFTWARE: PatentIN version 3.1
 SEQ ID NO: 52777
 LENGTH: 2515
 TYPE: DNA
 ORGANISM: Bovine 19866880359186
 US-10-750-623-52777

Query Match 15.5%; Score 29.8; DB 7; Length 2515;
 Best Local Similarity 60.5%; Pred. No. 2;
 Matches 49; Conservative 0; Mismatches 32; Indels 0; Gaps 0;
 APPLICANT: DENISE, Sue K.
 APPLICANT: KERR, Richard
 APPLICANT: ROSENFIELD, David
 APPLICANT: HOLM, Tom
 APPLICANT: BATES, Stephen
 APPLICANT: FANTIN, Dennis
 TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERMING BOVINE TRAITS
 FILE REFERENCE: MM1100-1
 CURRENT APPLICATION NUMBER: US/10/750,623
 CURRENT FILING DATE: 2003-12-31
 PRIOR APPLICATION NUMBER: US 60/437,482
 PRIOR FILING DATE: 2002-12-31.
 NUMBER OF SEQ ID NOS: 64922
 SOFTWARE: PatentIN version 3.1
 SEQ ID NO: 52777
 LENGTH: 2515
 TYPE: DNA
 ORGANISM: Bovine 19866880359186
 US-10-750-623-52777

RESULT 7
 US-10-750-626-3532
 ; Sequence 3532, Application US/10793626
 ; Publication No. US20050255478A1
 ; GENERAL INFORMATION:
 ; APPLICANT: KIMMERLY, WILLIAM JOHN
 ; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
 ; FILE REFERENCE: PU3480US
 ; CURRENT APPLICATION NUMBER: US/10/793,626
 ; CURRENT FILING DATE: 2004-03-04
 ; PRIOR APPLICATION NUMBER: 60/164,258
 ; PRIOR FILING DATE: 1999-11-09
 ; NUMBER OF SEQ ID NOS: 4472
 ; SEQ ID NO: 3629
 ; LENGTH: 3394
 ; TYPE: DNA
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic
 ; OTHER INFORMATION: nucleic acid sequence

RESULT 8
 US-10-793-626-3629/C
 ; Sequence 3629, Application US/10793626
 ; Publication No. US20050255478A1
 ; GENERAL INFORMATION:
 ; APPLICANT: KIMMERLY, WILLIAM JOHN
 ; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
 ; FILE REFERENCE: PU3480US
 ; CURRENT APPLICATION NUMBER: US/10/793,626
 ; CURRENT FILING DATE: 2004-03-04
 ; PRIOR APPLICATION NUMBER: 60/164,258
 ; PRIOR FILING DATE: 1999-11-09
 ; NUMBER OF SEQ ID NOS: 4472
 ; SEQ ID NO: 3629
 ; LENGTH: 3394
 ; TYPE: DNA
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic
 ; OTHER INFORMATION: nucleic acid sequence

RESULT 9
 US-10-750-185-311583
 ; Sequence 311583, Application US/10750185
 ; Publication No. US2005026603A1
 ; GENERAL INFORMATION:
 ; APPLICANT: MM GENOMICS, INC.
 ; APPLICANT: DENISE, Sue K.
 ; APPLICANT: KERR, Richard
 ; APPLICANT: ROSENFIELD, David
 ; APPLICANT: HOLM, Tom
 ; APPLICANT: BATES, Stephen
 ; APPLICANT: FANTIN, Dennis
 ; TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
 ; FILE REFERENCE: MM1100-2
 ; CURRENT APPLICATION NUMBER: US/10/750,185
 ; CURRENT FILING DATE: 2003-12-31
 ; PRIOR APPLICATION NUMBER: US 60/437,482

; OTHER INFORMATION: nucleic acid sequence
 US-10-793-626-3532

```

/PRIOR FILING DATE: 2002-12-31 ; TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
/ NUMBER OF SEQ ID NOS: 64922 ; FILE REFERENCE: MM1100-2
/ SOFTWARE: PatentIN version 3.1 ; CURRENT APPLICATION NUMBER: US10/750,185
/ SEQ ID NO: 31353 ; CURRENT FILING DATE: 2003-12-31
/ LENGTH: 1232 ; PRIORITY NUMBER: US 60/437,482
/ TYPE: DNA ; PRIOR FILING DATE: 2002-12-31
/ ORGANISM: Bovine ; NUMBER OF SEQ ID NOS: 64922
US-10-750-185-31353 ; SOFTWARE: PatentIN version 3.1
; SEQ ID NO: 41036
; LENGTH: 1764
; TYPE: DNA
; ORGANISM: Bovine 19866880618861
US-10-750-185-41036

Query Match 15.1%; Score 29; DB 7; Length 1232;
Best Local Similarity 58.8%; Pred. No. 2.9;
Matches 50; Conservative 0; Mismatches 35; Indels 0; Gaps 0;
Qy 23 AGACGGCTGCAATACTACATCTGCTGGATATTGGAGAAACAAATACTGGCAATAGGGAT 82
Db 255 AAAGGGGAGATAAACAAATGGAGAACCTTCATATACTGTGGTGGGAAT 314
Qy 83 GCACATGGAGCACCGAGGTTAA 107
Db 315 GTAAATGATGAGCCACTATGAA 339

RESULT 10
US 10-750-623-31353
; Sequence 31353, Application US/10750623
; Publication No. US20050287531A1
; GENERAL INFORMATION:
; APPLICANT: MMI GENOMICS, INC.
; FILE REFERENCE: MM1100-1
; TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
; CURRENT APPLICATION NUMBER: US/10/750,623
; CURRENT FILING DATE: 2003-12-31
; PRIORITY NUMBER: US 60/437,482
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIN version 3.1
; SEQ ID NO: 31353
; LENGTH: 1232
; TYPE: DNA
; ORGANISM: Bovine 19866880618861
US-10-750-623-31353

Query Match 15.1%; Score 29; DB 7; Length 1232;
Best Local Similarity 58.8%; Pred. No. 2.9;
Matches 50; Conservative 0; Mismatches 35; Indels 0; Gaps 0;
Qy 23 AGACGGCTGCAATACTACATCTGCTGGATATTGGAGAAACAAATACTGGCAATAGGGAT 82
Db 255 AAAGGGGAGATAAACAAATGGAGAACCTTCATATACTGTGGTGGGAAT 314
Qy 83 GCACATGGAGCACCGAGGTTAA 107
Db 315 GTAAATGATGAGCCACTATGAA 339

RESULT 11
US-10-750-185-41036
; Sequence 41036, Application US/10750185
; GENERAL INFORMATION:
; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFIELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: PANTIN, Dennis
; FILE REFERENCE: MM1100-1
; TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
; CURRENT APPLICATION NUMBER: US/10/750,623
; CURRENT FILING DATE: 2003-12-31
; PRIORITY NUMBER: US 60/437,482
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIN version 3.1
; SEQ ID NO: 41036
; LENGTH: 1764
; TYPE: DNA
; ORGANISM: Bovine 1986688061419185
US-10-750-623-41036

Query Match 15.0%; Score 28.8%; DB 7; Length 1764;
Best Local Similarity 54.8%; Pred. No. 3.9;
Matches 57; Conservative 0; Mismatches 47; Indels 0; Gaps 0;
Qy 9 TTATCTGGTGGACAGACGGCTGGAAATACTCTGGTGGATATTGGAGAAACAAATA 68
Db 1242 TTGCCTGGAAATTCTGTGGGTTGCAAGAGTCAGCTGACTTGCAACTAACACAA 1301
Qy 69 CTGCAATAGGAAATCACATGGAAACCCGAGGAGTAATTAC 112
Db 1302 CAACAAAAATGATACACGTGAATGCCCAAGGAAATTCAAG 1345

RESULT 12
US-10-750-623-41036
; Sequence 41036, Application US/10750623
; Publication No. US20050287531A1
; GENERAL INFORMATION:
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFIELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: PANTIN, Dennis
; FILE REFERENCE: MM1100-1
; TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
; CURRENT APPLICATION NUMBER: US/10/750,623
; CURRENT FILING DATE: 2003-12-31
; PRIORITY NUMBER: US 60/437,482
; NUMBER OF SEQ ID NOS: 64922
; SOFTWARE: PatentIN version 3.1
; SEQ ID NO: 41036
; LENGTH: 1764
; TYPE: DNA
; ORGANISM: Bovine 1986688061419185
US-10-750-623-41036

Query Match 15.0%; Score 28.8%; DB 7; Length 1764;
Best Local Similarity 54.8%; Pred. No. 3.9;
Matches 57; Conservative 0; Mismatches 47; Indels 0; Gaps 0;
Qy 9 TTATCTGGTGGACAGACGGCTGGAAATACTCTGGTGGATATTGGAGAAACAAATA 68
Db 1242 TTGCCTGGAAATTCTGTGGGTTGCAAGAGTCAGCTGACTTGCAACTAACACAA 1301
Qy 69 CTGCAATAGGAAATCACATGGAAACCCGAGGAGTAATTAC 112
Db 1302 CAACAAAAATGATACACGTGAATGCCCAAGGAAATTCAAG 1345

RESULT 13
US-10-750-185-54668
; Sequence 54668, Application US/10750185
; Publication No. US20050260603A1
; GENERAL INFORMATION:
; APPLICANT: MMI GENOMICS, INC.
; APPLICANT: DENISE, Sue K.
; APPLICANT: KERR, Richard
; APPLICANT: ROSENFIELD, David
; APPLICANT: HOLM, Tom
; APPLICANT: BATES, Stephen
; APPLICANT: PANTIN, Dennis
; APPLICANT: DENISE, Sue K.

```

APPLICANT: KERR, Richard
 APPLICANT: ROSENFIELD, David
 APPLICANT: HOLM, Tom
 APPLICANT: BATES, Stephen
 APPLICANT: FANTIN, Dennis
 TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
 FILE REFERENCE: MM11100-2
 CURRENT APPLICATION NUMBER: US/10/750,185
 CURRENT FILING DATE: 2003-12-31
 PRIOR APPLICATION NUMBER: US 60/437,482
 PRIOR FILING DATE: 2002-12-31
 NUMBER OF SEQ ID NOS: 64922
 SOFTWARE: PatentIN version 3.1
 SEQ ID NO: 54668
 LENGTH: 1002
 TYPE: DNA
 ORGANISM: Bovine 19866880898655

Query Match 14.7%; Score 28.2; DB 7; Length 1002;
 Best Local Similarity 61.6%; Pred. No. 5; Gaps 0;
 Matches 45; Conservative 0; Mismatches 28; Indels 0; Gaps 0;
 US-10-750-623-54668

Qy 75 TAGGGATGCCACATGGAAAGCACCGGGGTAATTACCGCTATTGGCTAACGGGATTGGGTG 134
 Db 575 TCGGAATCTCATGATAACGAAAGCCGGATACTGCTATGCACTGCTCGCTA 634

Qy 135 CTATGGCAAGGA 147
 Db 635 CTATGGTAGGA 647

RESULT 14
 US-10-750-623-54668
 Sequence 54668, Application US/10750623
 Publication No. US20050287531A1
 GENERAL INFORMATION:
 APPLICANT: MMI GENOMICS, INC.
 APPLICANT: DENISE, Sue K.
 APPLICANT: KERR, Richard
 APPLICANT: ROSENFIELD, David
 APPLICANT: HOLM, Tom
 APPLICANT: BATES, Stephen
 APPLICANT: FANTIN, Dennis
 TITLE OF INVENTION: METHODS AND SYSTEMS FOR INFERRING BOVINE TRAITS
 FILE REFERENCE: MM11100-1
 CURRENT APPLICATION NUMBER: US/10/750,185
 CURRENT FILING DATE: 2003-12-31
 PRIOR APPLICATION NUMBER: US 60/437,482
 PRIOR FILING DATE: 2002-12-31
 NUMBER OF SEQ ID NOS: 64922
 SOFTWARE: PatentIN version 3.1
 SEQ ID NO: 54668
 LENGTH: 1002
 TYPE: DNA
 ORGANISM: Bovine 19866880898655
 US-10-750-623-54668

Query Match 14.7%; Score 28.2; DB 7; Length 1002;
 Best Local Similarity 61.6%; Pred. No. 5; Gaps 0;
 Matches 45; Conservative 0; Mismatches 28; Indels 0; Gaps 0;
 US-10-750-185-57766

Qy 75 TAGGGATGCCACATGGAAAGCACCGGGGTAATTACCGCTATTGGCTAACGGGATTGGGTG 134
 Db 575 TGGAGATGCTCATGATAACGAAAGCCGGATACTGCTATGCACTGCTCGCTA 634

Qy 135 CTATGGCAAGGA 147
 Db 635 CTATGGTAGGA 647

RESULT 15
 US-10-750-185-57766

Search completed: January 22, 2006, 01:16:42
 Job time : 225 secs

Sequence 57766, Application US/10750185
 Publication No. US2005260503A1
 GENERAL INFORMATION:
 APPLICANT: MMI GENOMICS, INC.
 APPLICANT: DENISE, Sue K.
 APPLICANT: KERR, Richard
 APPLICANT: ROSENFIELD, David
 APPLICANT: HOLM, Tom
 APPLICANT: BATES, Stephen
 APPLICANT: FANTIN, Dennis
 TITLE OF INVENTION: COMPOSITIONS FOR INFERRING BOVINE TRAITS
 FILE REFERENCE: MM11100-2
 CURRENT APPLICATION NUMBER: US/10/750,185
 CURRENT FILING DATE: 2003-12-31
 PRIOR APPLICATION NUMBER: US 60/437,482
 PRIOR FILING DATE: 2002-12-31
 NUMBER OF SEQ ID NOS: 64922
 SOFTWARE: PatentIN version 3.1
 SEQ ID NO: 57766
 LENGTH: 1272
 TYPE: DNA
 ORGANISM: Bovine 1986688046656
 US-10-750-185-57766

Query Match 14.6%; Score 28; DB 7; Length 1272;
 Best Local Similarity 66.7%; Pred. No. 6.5;
 Matches 40; Conservative 0; Mismatches 20; Indels 0; Gaps 0;
 Qy 77 GGGATGCACATGGAAAGCACCGGGGTAATTACCGCTATTGGCTAACGGGATTGGGTG 136
 Db 1119 GAGAAGCCAGATGGAAAGCACTGCAACTAGTGTGAACTGACTATAGACTTGCTATGCGTT 1178

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Result No.	Score	Query Match	Length	DB ID	Description
1	122	100.0	192	9	US-10-721-793-115 Sequence 115, App
2	192	100.0	323	9	US-10-721-793-113 Sequence 113, App
3	190.4	99.2	192	9	US-10-721-793-119 Sequence 119, App
4	190.4	99.2	323	9	US-10-721-793-117 Sequence 117, App
5	156.8	81.7	192	9	US-10-721-793-151 Sequence 151, App
6	156.8	81.7	320	9	US-10-721-793-149 Sequence 149, App
7	155.2	80.8	192	9	US-10-721-793-195 Sequence 195, App
8	155.2	80.8	320	9	US-10-721-793-193 Sequence 193, App
9	152	79.2	192	9	US-10-721-793-47 Sequence 47, App
10	152	79.2	258	9	US-10-721-793-45 Sequence 45, App
11	150.4	78.3	192	9	US-10-721-793-43 Sequence 43, App
12	150.4	78.3	254	9	US-10-721-793-41 Sequence 41, App
13	145.4	75.7	198	9	US-10-721-793-91 Sequence 91, App
14	145.4	75.7	323	9	US-10-721-793-89 Sequence 89, App
15	126.8	66.0	189	9	US-10-721-793-111 Sequence 111, App
16	126.8	66.0	311	9	US-10-721-793-109 Sequence 109, App
17	124.6	64.9	323	9	US-10-721-793-101 Sequence 101, App
18	124.6	64.9	323	9	US-10-721-793-105 Sequence 105, App
19	123.2	64.2	192	9	US-10-721-793-103 Sequence 103, App
20	123.2	64.2	320	9	US-10-721-793-107 Sequence 107, App
21	123	64.1	195	9	US-10-721-793-147 Sequence 147, App
22	123	64.1	198	9	US-10-721-793-175 Sequence 175, App
23	123	64.1	323	9	US-10-721-793-145 Sequence 145, App

Qy 181 ATAAAGATGC 192
 Db 181 ATAAAGATGC 192

RESULT 2
 US-10-721-793-113
 / Sequence 113, Application US/10721793
 / Publication No. US20050065331A1
 / GENERAL INFORMATION:
 / APPLICANT: Garcia Villegas, Miguel
 / APPLICANT: Valdez Cruz, Norma Adriana
 / APPLICANT: Gurrola Briones, Georgina
 / APPLICANT: Becerri Lujan, Baltazar
 / APPLICANT: Posbani Postay, Lourival Domingos
 / TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the Genus Centruroides
 / FILE REFERENCE: 2099-0070001
 / CURRENT APPLICATION NUMBER: US/10/721,793
 / PRIORITY FILING DATE: 2003-11-26
 / NUMBER OF SEQ ID NOS: 294
 / SOFTWARE: PatentIn version 3.1
 / SEQ ID NO: 113
 / LENGTH: 323
 / TYPE: DNA
 / FEATURE: Product= Sodium-channel modifier toxin
 / ORGANISM: Centruroides elegans
 / NAME/KEY: CDS
 / LOCATION: (5)..(265)
 / OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
 / OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gly
 / OTHER INFORMATION: and the last 2 basic aminoacids are cut
 / FEATURE:
 / NAME/KEY: 3' UTR
 / LOCATION: (269)..(323)
 / OTHER INFORMATION:
 / FEATURE:
 / NAME/KEY: 5' UTR
 / LOCATION: (1)..(4)
 / OTHER INFORMATION:
 / FEATURE:
 / NAME/KEY: mat_peptide
 / LOCATION: (65)..()
 / OTHER INFORMATION: Product= Sodium-channel modifier toxin
 / FEATURE:
 / NAME/KEY: sig_peptide
 / LOCATION: (5)..(64)
 / OTHER INFORMATION:
 / US-10-721-793-113

Query Match 100 0% Score 192; DB 9; Length 323;
 best Local Similarity 100.0%; Pred. No. 1.3e-53; Indels 0; Gaps 0;
 Matches 192; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

RESULT 3
 US-10-721-793-119
 / Sequence 119, Application US/10721793
 / Publication No. US20050065331A1
 / GENERAL INFORMATION:
 / APPLICANT: Garcia Villegas, Miguel
 / APPLICANT: Valdez Cruz, Norma Adriana
 / APPLICANT: Gurrola Briones, Georgina
 / APPLICANT: Becerri Lujan, Baltazar
 / APPLICANT: Posbani Postay, Lourival Domingos
 / TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the Genus Centruroides
 / FILE REFERENCE: 2099-0070001
 / CURRENT APPLICATION NUMBER: US/10/721,793
 / PRIORITY FILING DATE: 2003-11-26
 / NUMBER OF SEQ ID NOS: 294
 / SOFTWARE: PatentIn version 3.1
 / SEQ ID NO: 119
 / LENGTH: 192
 / TYPE: DNA
 / ORGANISM: Centruroides elegans
 / FEATURE:
 / NAME/KEY: CDS
 / LOCATION: (1)..(192)
 / OTHER INFORMATION: Product= Sodium-channel modifier toxin
 / US-10-721-793-119

Query Match 99.2% Score 190.4; DB 9; Length 192;
 best Local Similarity 99.5%; Pred. No. 3.6e-53; Indels 1; Gaps 0;
 Matches 191; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AAAGCCTTATCGGTGACAAGAGGGCTGCAAATACTTGCTGGATATTGGAGAA 60
 Db 1 AAAGCCTTATCGGTGACAAGAGGGCTGCAAATACTTGCTGGATATTGGAGAA 60

Qy 61 AACAAATACTGCAATAGGAAATGCCATGAAAGCAGCCGAGAGTAATTACGGCTATTGC 120
 Db 61 AACAAATACTGCAATAGGAAATGCCATGAAAGCAGCCGAGAGTAATTACGGCTATTGC 120

Qy 121 TACGGATTGGTGTGTTATGGGAAAGGATTTGCGAAGGATTTGCCCCTTCT 180
 Db 121 TACGGATTGGTGTGTTATGGGAAAGGATTTGCGAAGGATTTGCCCCTTCT 180

Qy 181 AATAAAGATGC 192
 Db 181 AATAAAGATGC 192

RESULT 4
 US-10-721-793-117
 / Sequence 117, Application US/10721793
 / Publication No. US20050065331A1
 / GENERAL INFORMATION:
 / APPLICANT: Garcia Villegas, Miguel
 / APPLICANT: Valdez Cruz, Norma Adriana
 / APPLICANT: Gurrola Briones, Georgina
 / APPLICANT: Becerri Lujan, Baltazar
 / APPLICANT: Posbani Postay, Lourival Domingos
 / TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the Genus Centruroides
 / FILE REFERENCE: 2099-0070001
 / CURRENT APPLICATION NUMBER: US/10/721,793
 / PRIORITY FILING DATE: 2003-11-26
 / NUMBER OF SEQ ID NOS: 294
 / SOFTWARE: PatentIn version 3.1
 / SEQ ID NO: 117

Qy 1 AAAGCCTTATCTGTGAGAGGCTGCAAATACCTTGCTGGATATTGGAGAA 60
 Db 65 AAAGCCTTATCTGTGAGAGGCTGCAAATACCTTGCTGGATATTGGAGAA 124

Qy 61 AACAAATACTGCAATAGGAAATGGGAAAGGAGGAATTCAGGTATTCG 120
 Db 125 AACAAATACTGCAATAGGAAATGGGAAAGGAGGAATTCAGGTATTCG 184

Qy 121 TAGGGATTGGTGTGTTATGGGAAAGGATTTGCGAAGGATTTGCCCCTTCT 180
 Db 185 TAGGGATTGGTGTGTTATGGGAAAGGATTTGCGAAGGATTTGCCCCTTCT 244

Qy 181 ATAAAGATGC 192
 Db 245 ATAAAGATGC 256

LENGTH: 323
 TYPE: DNA
 ORGANISM: *Centruroides elegans*
 FEATURE:
 NAME/KEY: CDS
 LOCATION: (5) . (265)
 OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
 OTHER INFORMATION: In the mature Peptide, the last Cys is amidated, and the last Gly
 OTHER INFORMATION: and the last 2 basic aminoacids are cut

FEATURE:
 NAME/KEY: 3'UTR
 LOCATION: (269) . (323)
 OTHER INFORMATION:
 NAME/KEY: mat_peptide
 LOCATION: (65) .()
 OTHER INFORMATION: Product= Sodium-channel modifier toxin

FEATURE:
 NAME/KEY: big_peptide
 LOCATION: (5) . (64)
 OTHER INFORMATION:
 US-10-721-793-117

Query Match 99.2%; Score 190.4; DB 9; Length 323;
 Best Local Similarity 99.5%; Pred. No. 4..5e-53;
 Matches 191; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AAGAACGCTTATCGGGACAAAGCCGGCTGCAATACTTGCGCATATTGGAGAA 60
 Db 65 AAGAACGCTTATCGGGACAAAGCCGGCTGCAATACTTGCGCATATTGGAGAA 124
 Qy 61 AACAAATAACTGCAATAAGGAAATCACATGGGAGGTAAATTCGGCTATTGC 120
 Db 125 AACAAATACTGCAATAAGGAAATCACATGGGAGGTAAATTCGGCTATTGC 184
 Qy 121 TAGGATTGGGTGCTATGGGAGGATGTCGATAGTACCCGACTTGCGCATATTGGAGAA 180
 Db 185 TAGGATTGGGTGCTATGGGAGGATGTCGATAGTACCCGACTTGCGCATATTGGAGAA 244
 Qy 181 AATAAAGATGC 192
 Db 245 AATAAAGATGC 256

RESULT 5
 US-10-721-793-151
 Sequence 151, Application US/10721793
 Publication No. US20050065331A1
 GENERAL INFORMATION:
 APPLICANT: Corona Villegas, Miguel
 APPLICANT: Garcia Rodriguez, Ma Consuelo
 APPLICANT: Valdez Cruz, Norma Adriana
 APPLICANT: Gurroila Briones, Baitazar
 APPLICANT: Bocerri Lujan, Baitazar
 APPLICANT: Possani Postay, Lourival Domingos
 TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
 TITLE OF INVENTION: Venom of Scorpions of the Genus *Centruroides*

FILE REFERENCE: 2099.0070001
 CURRENT APPLICATION NUMBER: US/10721793
 CURRENT FILING DATE: 2003-11-26
 PRIOR APPLICATION NUMBER: US 60/430,067
 PRIOR FILING DATE: 2002-12-02
 NUMBER OF SEQ ID NOS: 294
 SOFTWARE: PatentIn version 3.1

SEQ ID NO 151
 LENGTH: 192
 TYPE: DNA
 ORGANISM: *Centruroides sculpturatus*
 FEATURE:

NAME/KEY: CDS
 LOCATION: (1) .(192)
 OTHER INFORMATION: Product= Sodium-channel modifier toxin
 PUBLICATION INFORMATION:
 AUTHORS: Corona, M., Valdez-Cruz, N.A., Merino, E., Zurita, M. & Possani L.D.
 TITLE: Genes and Peptides from the scorpion *Centruroides sculpturatus* Ewing,
 TITLEB: that recognize Na+ channels
 JOURNAL: Toxicon
 VOLUME: 39
 ISSUE: 12
 PAGES: 1893-1898
 DATE: 2001-12-01
 DATABASE ENTRY DATE:
 RELEVANT RESIDUES: (1) ..(192)
 US-10-721-793-151

Query Match 81.7%; Score 156.8; DB 9; Length 192;
 Best Local Similarity 88.5%; Pred. No. 6.1e-42;
 Matches 170; Conservative 0; Mismatches 22; Indels 0; Gaps 0;

Qy 1 AAAAGACGGTTATCTGGTGGACAGAGGGCTGCAAATACTTGCGCATATTGGAGAA 60
 Db 1 AAGGACGGTTATCTGGAAAAGACGGGTGCAAATACTTGCGCATATTGGAGAA 60
 Qy 61 AACAAATAACTGCAATAAGGAAATGGGATGCAATGGAGGATTAATCGCTATTGC 120
 Db 61 AACGATTGGATTTGGATATGGGATGCAATGGAGGATCATAGGAGTTATGGCTATTTC 120

Query Match 81.7%; Score 156.8; DB 9; Length 192;
 Best Local Similarity 88.5%; Pred. No. 6.1e-42;
 Matches 170; Conservative 0; Mismatches 22; Indels 0; Gaps 0;

Qy 1 TAGGATTGGGTGCTATTGGGAGGATTGCGATAGTACCCGACTTGCGCATATTGGAGAA 180
 Db 121 TAGGATTGGGTGCTATTGGGAGGATTGCGATAGTACCCGACTTGCGCATATTGGAGAA 180

Qy 181 AATAAAGATGC 192
 Db 181 AATAAAGATGC 192

RESULT 6
 US-10-721-793-149
 Sequence 149, Application US/10721793
 Publication No. US20050065331A1
 GENERAL INFORMATION:
 APPLICANT: Corona Villegas, Miguel
 APPLICANT: Garcia Rodriguez, Ma Consuelo
 APPLICANT: Valdez Cruz, Norma Adriana
 APPLICANT: Gurroila Briones, Baitazar
 APPLICANT: Bocerri Lujan, Baitazar
 APPLICANT: Possani Postay, Lourival Domingos
 TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
 TITLE OF INVENTION: Venom of Scorpions of the Genus *Centruroides*
 FILE REFERENCE: 2099.0070001
 CURRENT APPLICATION NUMBER: US/10721793
 CURRENT FILING DATE: 2003-11-26
 PRIOR APPLICATION NUMBER: US 60/430,067
 PRIOR FILING DATE: 2002-12-02
 NUMBER OF SEQ ID NOS: 294
 SOFTWARE: PatentIn version 3.1

SEQ ID NO 149
 LENGTH: 320
 TYPE: DNA
 ORGANISM: *Centruroides sculpturatus*
 FEATURE:
 NAME/KEY: CDS
 LOCATION: (5) .(262)
 OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
 OTHER INFORMATION: In the mature Peptide, the last Cys is amidated, and the last Gl
 OTHER INFORMATION: and the last 2 basic aminoacids are cut

FEATURE:
 NAME/KEY: mat_Peptide
 LOCATION: (62) .()
 OTHER INFORMATION: Product= Sodium-channel modifier toxin
 FEATURE:
 NAME/KEY: big_peptide

```

// LOCATION: (5) ..(61)
// OTHER INFORMATION:
// FEATURE:
// NAME/KEY: 5' UTR
// LOCATION: (1) ..(4)
// OTHER INFORMATION:
// PUBLICATION INFORMATION:
// AUTHORS: Corona, M., Valdez-Cruz, N.A., Merino, E., Zurita, M. & Possani L.D.
// TITLE: Genes and peptides from the scorpion Centruroides sculpturatus
// TITLE: that recognize Na+ channels
// JOURNAL: Toxicon
// VOLUME: 39
// ISSUE: 12
// PAGES: 1893-1898
// DATE: 2001-12-01
// DATABASE ENTRY DATE:
// RELEVANT RESIDUES: (5) ..(262)
// US-10-721-793-149

Query Match          81.7%; Score 156 ; DB 9; Length 320;
Best Local Similarity 88.5%; Fred. No. 7.6e-42;
Matches 170; Conservative 0; Mismatches 22; Indels 0; Gaps 0;

Qy      1 AAGAGGGTTATCTGTGACAGACGGCTCAAAATACACTTGTCTGGATATTGGGAGAA 60
Db      62 AGGGAGGGTTATCTACTGGAAAGAAGGGCTCAAAAGGTTGTACAAATTGGGAGAA 121
Qy      61 ACAAAATACTCCAATAGGGATATGCCAATGGAAAGCAGGACCGGAGGTATTAGGGATTG 120
Db      122 AACGATTTTCATAAGGAATGCAAATGGGACATAGGGACATAGGGATGTTAGGGATTTC 181
Qy      121 TACGGATTTCGGTCTATTGGAAAGGGTTGGCCTAGTAGGCTAACCCGTTCTTCT 180
Db      182 TACGGATTTCGGTCTATTGGAAAGGGTTGGCCTAGTAGGCTAACAGCTTGCCTTCCT 241

Qy      181 ATAAAAGATGC 192
Db      242 ATAAAACATGC 253

RESULT 7
US-10-721-793-195
Sequence 195, Application US/10721793
; Publication No. US2003065311A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurriola Briones, Georgina
; APPLICANT: Becerril Juian, Balaizar
; APPLICANT: Possani Postay, Louival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the Genus Centruroides
; FILE REFERENCE: 2099.070001
; CURRENT APPLICATION NUMBER: US/10/721,793
; CURRENT FILING DATE: 2003-11-16
; PRIOR APPLICATION NUMBER: US 2002-099-070001
; PRIOR FILING DATE: 2002-12-02
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO: 195
; LENGTH: 192
; TYPE: DNA
; ORGANISM: Centruroides sculpturatus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1) ..(192)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
; PUBLICATION INFORMATION:

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LOCATION: (62)..()
 OTHER INFORMATION: Product= Sodium-channel modifier toxin
 FEATURE: sig_peptide
 LOCATION: (5)..(61)
 OTHER INFORMATION:
 PUBLICATION INFORMATION:
 AUTHORS: Corona, M., Valdez-Cruz, N.A., Merino, E., Zurita, M. & Possani L.D.
 TITLE: Genes and Peptides from the Scorpion Centruroides Sculpturatus Ewing,
 JOURNAL: Toxicon
 VOLUME: 39
 ISSUE: 12
 PAGES: 1893-1898
 DATE: 2001-12-01
 DATABASE ENTRY DATE: RELEVANT RESIDUES: (5)..(262)
 US-10-721-793-193

Query Match Score 80.8%; Length 320;
 Best Local Similarity 88.0%; Pred. No. 2, 6e-41;
 Matches 169; Conservative 0; Indels 0; Gaps 0;
 Matches 169; Conservative

Qy 1 AAAGACGGTTATCTGGGACAAGACGGCTGCAATAACACTGGTGGATATTGGGAGAA 60
 Db 1 AGGAGGTATCTGGGTCATGGGATTCGAGGCTGGGCTGCAGAAAGCTTGGCTATAATTGGGAGAA 60
 Qy 61 AACAAATACTGCAATAGGAATGGCATGGAGGCCAGGGTAATTAGGCTATTGC 120
 Db 61 AACAAATTCTGCAATAGGAATGGCATGGAGGCCAGGGTAATTAGGCTATTGC 120
 Qy 61 AACAAATACTGCAATAGGAATGGCATGGAGGCCAGGGTAATTAGGCTATTGC 120
 Db 62 AAGGAAGTTATCTGGGACCTAAAGGTGCAAAAATTGCTGAAATTGGGAGAT 121
 Qy 61 AACAAATACTGCAATAGGAATGGCATGGAGGCCAGGGTAATTAGGCTATTGC 120
 Db 122 AACGATTAGGAATGGCATTAATGGACCACATAGGAGTAGTACCGCTATTGC 181
 Qy 121 TAGGATTGGGNGCTATGGCAAGGATGTCGATACACCGACTGGCCCTCT 180
 Db 182 TACGGATTGGGNGCTATGGCAAGGATGTCGATACACCGACTGGCCCTCT 241
 Qy 181 AATAAAAGATGC 192
 Db 242 AATAAAAGATGC 253

RESULT 10
 US-10-721-793-45
 Sequence 47, Application US/10721793
 Publication No. US20050065331A1
 GENERAL INFORMATION:
 APPLICANT: Corona Villegas, Miguel
 APPLICANT: Garcia Rodriguez, Ma Consuelo
 APPLICANT: Valdez Cruz, Norma Adriana
 APPLICANT: Gurrola Briones, Georgina
 APPLICANT: Becerril Lujan, Baltazar
 APPLICANT: Possani Postay, Lourival Domingos
 TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
 TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
 FILE REFERENCE: 2099.0070001
 CURRENT APPLICATION NUMBER: US/10/721-793
 CURRENT FILING DATE: 2003-11-26
 PRIOR APPLICATION NUMBER: US 60/430,067
 PRIOR FILING DATE: 2002-12-02
 NUMBER OF SEQ ID NOS: 294
 SOFTWARE: Patentin version 3.1
 SEQ ID NO: 45
 LENGTH: 258
 TYPE: DNA
 ORGANISM: Centruroides exilicauda
 FEATURE:
 NAME/KEY: CDS
 LOCATION: (1)..(204)
 OTHER INFORMATION: Product= Sodium-channel modifier toxin Precursor
 OTHER INFORMATION: In the mature peptide, the last Cys is amidated, and the last Gl
 OTHER INFORMATION: and the last 2 basic aminoacids are cut
 FEATURE:
 NAME/KEY: 3' UTR
 LOCATION: (205)..(258)
 OTHER INFORMATION:
 US-10-721-793-45

Query Match Score 79.2%; Length 258;
 Best Local Similarity 87.0%; Pred. No. 2.8e-40;
 Matches 167; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

Qy 1 AAACGGTTATCTGGACAAGACGGCTGCAATAACACTGGTGGATATTGGGAGAA 60
 Db 1 AAGGAGGTATCTGGCTGAGGATTCGAGGCTGACGGCTGCAAAAAGCTTGGCTATAATTGGGAGAA 60
 Qy 61 AACAAATACTGCAATAGGAATGGCATGGAGGCCAGGGTAATTAGGCTATTGC 120
 Db 61 AACAAATTCTGCAATAGGAATGGCATGGAGGCCAGGGTAATTAGGCTATTGC 120
 Qy 121 TAGGATTGGGNGCTATGGCAAGGATGTCGATACACCGACTGGCCCTCT 180
 Db 121 TATTTTGGGNGCTATGGCAAGGATGGCATGGAGGCCAGGGTAATTAGGCTATTGC 180
 Qy 181 AATAAAAGATGC 192
 Db 181 AATAAAAGATGC 192
 Qy 181 AATAAAAGATGC 192
 Db 181 AATAAAAGATGC 192

RESULT 11
US-10-721-793-43
Sequence 43, Application US/10721793
Publication No. US2005065331A1
GENERAL INFORMATION:
APPLICANT: Corona Villegas, Miguel
APPLICANT: Garcia Rodriguez, Ma Consuelo
APPLICANT: Valdez Cruz, Norma Adriana
APPLICANT: Gurrola Briones, Georgina
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Possani Postay, Lourival Domingos
TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
FILE REFERENCE: 2099.0070011
CURRENT APPLICATION NUMBER: US/10/721,793
CURRENT FILING DATE: 2003-11-26
PRIOR APPLICATION NUMBER: US 60/430,067
PRIOR FILING DATE: 2002-12-02
NUMBER OF SEQ ID NOS: 294
SOFTWARE: PatentIn version 3.1
SEQ ID NO: 43
LENGTH: 192
TYPE: DNA
ORGANISM: Centruroides exilicauda
FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(192)
OTHER INFORMATION: Product= Sodium-channel modifier toxin

US-10-721-793-43

Query Match
Best Local Similarity 78.3%; Score 150.4; DB 9; Length 192;
Matches 166; Conservative 0; Mismatches 26; Indels 0; Gaps 0;

Qy 1 AAAGACGGTTATCTGTGCAAGACGGCTGAAATACTTGTGATATGGGAGAA 60
Db 1 AAGGACCGTTATCTGGTGAGGTACCGCTGCAAAAGCTTGTATATTGGGAGAA 60
Qy 1 AAACAATACTGCAATAGGAATGGGACTGCAATGAAATTAGGGTTATGGC 120
Db 1 AACATATACTGCAATAGGAATGGGACTGCAAGGCAAGGCCGGAGGTATACGGCTATTGC 120
Qy 1 AACATATACTGCAATAGGAATGGGACTGCAATGAAATTAGGGTTATGGC 120
Db 1 AACATATACTGCAATAGGAATGGGACTGCAAGGCAAGGCCGGAGGTATACGGCTATTGC 120
Qy 1 TACGGATTGGTGTGTTGGGATTTGGCAAGGATTTGTCGATAGCATGAACTTGCCCTTTCT 180
Db 1 TATTTTTGGTGTGTTGGGATTTGGCAAGGATTTGTCGATAGCATGAACTTGCCCTTTCT 180
Qy 1 ATAAAGATGC 192
Db 1 ATAAAGATGC 192

RESULT 13
US-10-721-793-91
Sequence 91, Application US/10/721793
Publication No. US2005065331A1
GENERAL INFORMATION:
APPLICANT: Corona Villegas, Miguel
APPLICANT: Garcia Rodriguez, Ma Consuelo
APPLICANT: Valdez Cruz, Norma Adriana
APPLICANT: Gurrola Briones, Georgina
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Possani Postay, Lourival Domingos
TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
FILE REFERENCE: 2099.0070011
CURRENT APPLICATION NUMBER: US/10/721,793
PRIORITY APPLICATION NUMBER: US 60/430,067
PRIOR FILING DATE: 2002-12-02
NUMBER OF SEQ ID NOS: 294
SOFTWARE: PatentIn version 3.1
SEQ ID NO: 91
LENGTH: 198
TYPE: DNA
ORGANISM: Centruroides noxius
FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(198)
OTHER INFORMATION: Product= Sodium-channel modifier toxin

US-10-721-793-91

Query Match
Best Local Similarity 75.7%; Score 145.4; DB 9; Length 198;
Matches 171; Conservative 0; Mismatches 21; Indels 3; Gaps 1;

Qy 1 AAAGACGGTTATCTGGGAGAA--GACGGGTTGAAATACTGTGATATGGGA 57

Db 1 AACGAACGTTATCGGTAAACAAAGCACAGGGTGTAAATAAACCTGCTTGATATTGGGA 60 Db 122 GAAAACAAAATACTGGCATATGGAAAGGAAACCAAGGGAAAGGAGGTAGTTACGGCTAT 181

Qy 58 GAAACAAATACTGCAATAGGAAATGCCATGAGGAAAGCCAGGAACTTACGGCTAT 117 Qy 118 TGCTAACGGATTGGGTGCTATTCGAAAGGATGTCGGATAGTACACCGACTTGGCCCTT 177

Db 61 GAAACAAAACTGCGATATGGAAATGCCATGAGGAAAGCCAGGAACTTACGGCTAT 120 Db 182 TGCTAACGGATTGGGTGCTATTCGAAAGGATGTCGGATAGTACACCGACTTGGCCCTT 241

Qy 118 TGTACGGATTGGGTGCTATTCGAAAGGATGTCGGATAGTACACCGACTTGGCCCTT 177 Qy 178 TCTAATAAAAGATGC 192

Db 121 TGTACGGATTGGGTGCTATTCGAAAGGATGTCGGATAGTACACCGACTTGGCCCTT 180 Db 242 CCTAATAAAACATGC 256

Qy 178 TCTAATAAAAGATGC 192
Db 181 CCTAATAAAACATGC 195

RESULT 14
US-10-721-793-115
; Sequence 89, Application US/10721793
; Publication No. US20050065331A1
; GENERAL INFORMATION:
; APPLICANT: Corona Villegas, Miguel
; APPLICANT: Garcia Rodriguez, Ma Consuelo
; APPLICANT: Valdez Cruz, Norma Adriana
; APPLICANT: Gurrola Briones, Georgina
; APPLICANT: Becerril Lujan, Baltazar
; APPLICANT: Possani Postay, Lourival Domingos
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
; FILE REFERENCE: 2009.0070001
; CURRENT APPLICATION NUMBER: US/10/721,793
; PRIORITY FILING DATE: 2003-11-26
; PRIORITY NUMBER: US 60/430,067
; NUMBER OF SEQ ID NOS: 294
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO: 89
; LENGTH: 323
; TYPE: DNA
; ORGANISM: Centruroides noxius
; FEATURE: NAME/KEY: CDS
; LOCATION: (5)..(265)
; OTHER INFORMATION: Product= Sodium-channel modifier toxin precursor
; OTHER INFORMATION: In the mature peptide, the last Ser is amidated, and the last Gly
; OTHER INFORMATION: and the last basic aminoacid are cut
; FEATURE: NAME/KEY: 3'UTR
; LOCATION: (268)..(323)
; OTHER INFORMATION:
; FEATURE: NAME/KEY: 5'UTR
; LOCATION: (1)..(4)
; OTHER INFORMATION:
; FEATURE: NAME/KEY: mat_peptide
; LOCATION: (62)..()
; OTHER INFORMATION: Product= Sodium-channel modifier toxin
; FEATURE:
; NAME/KEY: sig_peptide
; LOCATION: (5)..(61)
; OTHER INFORMATION:
US-10-721-793-89

Query Match 75.7%; Score 145.4; DB 9; Length 323;
Best Local Similarity 87.7%; Pred. No. 4.9e-38;
Matches 171; Conservative 0; Mismatches 21; Indels 3; Gaps 1;

Qy 1 AAAGACGGTTATCGGTGCAAA---GACGGGTGCAAAATACACTGGATATTGGGA 57
Db 62 AAGGAGGGTTATCGGTGCAAAAGCAGGGCTGAATAACAGCTGTAATTGCTGAATTGGGA 121
Qy 58 GAAACAAATACTGCAATAGGAAATGCCATGAGGAAAGCCAGGAACTTACGGCTAT 117

Search completed: January 22, 2006, 01:12:50
Job time : 2178 secs

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ALIGNMENTS

RESULT	1
BP248044	BP248044
LOCUS	BP248044 Sugano cDNA library, mRNA sequence.
DEFINITION	HKR09944, mRNA sequence.
ACCESSION	BP248044
VERSION	BP248044.1
KEYWORDS	EST.
SOURCE	Homo sapiens (human)
ORGANISM	Homo sapiens
	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrini;

SUMMARIES						
Result No.	Score	Query Match	Length	DB	ID	Description
1	36.8	19.2	582	3	BP248044	BP248044 BP248044
2	35.2	18.3	656	5	BP7640569	BP7640569 NFO31A991
c	3	35	18.2	982	10	CNS0000OB
c	4	34.8	18.1	820	1	AU119061
c	5	34.8	18.1	849	1	DNB39051
c	6	34.6	18.0	340	6	CP503342
c	7	34.6	18.0	918	5	BUD52525
c	8	34.4	17.9	1080	8	DR738811
c	9	34.4	17.8	459	11	CR899081
c	9	34.2	17.8	490	5	CR899083
c	10	34.2	17.8	893	1	BQ8644839
c	11	34.2	17.8	893	1	BUS543170
c	12	34	17.7	748	4	AY440472

	Query	Match	Score	36.8;	DB	3;	Length	582;
		Best Local Similarity	50.0%;	Pred.	No.	2;		
		Matches	92;	Mismatches	92;	Indels	0;	Gaps
C	14	33.6	17.5	377	8	N75948	N75948 za44c05.81	
C	15	33.6	17.5	474	8	N57766	N57766 yy5se03.81	
C	16	33.6	17.5	581	9	AQ725129	AQ725129 HS_5392_A	
C	17	33.4	17.4	978	10	CL041476	CL041476 CH216-52P	
C	18	33.4	17.4	1213	10	CL644174	CL644174 CH213-64N	
C	19	33.4	17.4	1226	10	AG181747	AG181747 Pan_trop1	
C	20	33.2	17.3	352	1	AT468868	AT468868 t143b12_x	
C	21	33.2	17.3	619	1	BA293053	BA293053 zt554d05_r	
C	22	33.3	17.2	336	2	BF767499	BF767499 CN4_-CN009	
Qy		1	AAAGACGGTTATCGGTGGACAAACAGCGGCTGCAAATACACTGCTGGATAATTGGAGAA					
Db		151	AAAGACTGTTAGCTTCCATTAGATGGATTACITGAGATTAGAAAAA					

SOURCE	Homo sapiens (human)	West Lafayette, IN 47907-1153, USA
ORGANISM	Homo sapiens	Tel: 765 494 0494 Fax: 765 496 7213 Email: chapple@purdue.edu
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		PCR Primers
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;		FORWARD: T7 Forward
Hominidae; Homo;		BACKWARD: M13 Backward
1 (bases 1 to 820)		Plate: SmoC-1 05 row: A column: 23
Ota, T., Nishikawa, T., Suzuki, Y., Ishii, S., Saito, K., Kawai, Y., Yamamoto, J., Wakamatsu, A., Nakamura, Y., Nagai, T., Sugano, S. and Isogai, T.		Seq Primer: T7 Forward.
TITLE	HRI human cDNA project	FEATURES
JOURNAL	Unpublished (2000)	source
COMMENT	Contact: Takao Isogai	/organism="Selaginella moellendorffii"
Genomics Laboratory		/mol type="mRNA"
Human Research Institute		/db_xref="taxon:88036"
1532-3 Yara, Kisarazu, Chiba 292-0812, Japan		/tissue type="Whole Plant"
Tel: 81-438-52-3975		/clone Tib="Selaginella moellendorffii" cDNA library
Fax: 81-438-52-3986		Smoc-1"
Email: genomics@hri.co.jp		/note="vector: pDNR-LIB; site_1: S5I; site_2: S5II;
HRI human cDNA project; 5' - & 3' -end one pass sequencing: Helix		Library construction was performed according to
Research Institute; cDNA library construction: Department of		manufacturer's (CLONTECH, Palo Alto, CA) recommended
Virology, Institute of Medical Science, University of Tokyo, and		protocol for Creator Smart cDNA Library Construction Kit."
Helix Research Institute.		ORIGIN
FEATURES		Query Match 18.1%; Score 34.8%; DB 8; Length 849;
source	J. .820	Best Local Similarity 57.3%; Pred. No. 9,1; Gaps 0;
	/organism="Homo sapiens"	Matches 63; Conservative 0; Mismatches 47; Indels 0; Gaps 0;
	/mol type="mRNA"	
	/db_xref="taxon:9606"	
	/clone="HENBA1004961"	Qy 8 GTTATCGGTGACAGACGGCTGCCAAATAGACTTGCTGGATATTGGAGAACAAAT 67
	/tissue type="whole embryo, mainly head"	Db 376 GAAACATGGACGACATCACAGCATGTCGCAGAGGGTATGGAGAAGAAAG 435
	/dev_stage="embryo, 10 weeks"	
	/clone lib="HENBA1"	Qy 68 ACTGAAATAGGGAAATGCAATGCAATGCCAGAACGACGGAGGTAAATTAGGGTAT 117
	/note="Vector: PME18SFL3"	Db 436 AGTCTCTTGTGAAATGCCGAAACTTAATGGTGGAAATTAGGGCTAT 485
ORIGIN		
FEATURES		RESULT 6
source	J. .820	CP503342/c
	/organism="Homo sapiens"	LOCUS CP503342
	/mol type="mRNA"	DEFINITION MP1-0018U-V031-H07-U.B MP1-0018 Schistosoma mansoni cDNA clone
	/db_xref="taxon:9606"	MP1-0018U-V031-H07.B Similar to putative retrotransposon, mRNA
	/clone="HENBA1004961"	sequence.
	/tissue type="whole embryo, mainly head"	CP503342
	/dev_stage="embryo, 10 weeks"	Db CP503342.1 GI:46896368
	/clone lib="HENBA1"	
	/note="Vector: PME18SFL3"	
ORIGIN		
FEATURES		KEYWORDS EST.
source	J. .820	ORGANISM Schistosoma mansoni
	/organism="Homo sapiens"	Eukaryota; Metazoa; Platyhelminthes; Trematoda; Digenea;
	/mol type="mRNA"	Strigeida; Schistosomatidae; Schistosoma.
	/db_xref="taxon:9606"	REFERENCE 1 (bases 1 to 340)
	/clone="HENBA1004961"	AUTHORS DeMarco, R., Kowaltowski, A.T., Machado, A.A., Soares, M.B.,
	/tissue type="whole embryo, mainly head"	Gargini, C., Kawano, T., Rodrigues, V., Madeira, A.M.B.N.,
	/dev_stage="embryo, 10 weeks"	Wilson, R.A., Menck, C.P.M., Setubal, M.C., Dias-Neto, E., Leite, L.C.C.,
	/clone lib="HENBA1"	and Verjovski-Almeida,S.
	/note="Vector: PME18SFL3"	TITLE Saci-1, -2 and -3 and Perere, four novel retrotransposons with high transscriptional activities from the human parasite Schistosoma mansoni
ORIGIN		J. Virol. 78 (6), 2967-2978 (2004)
FEATURES		PUBLMED 1499015
source	J. .820	COMMENT Contact: Dr. Sergio Verjovski-Almeida
	/organism="Homo sapiens"	Departamento de Bioquimica
	/mol type="mRNA"	Instituto de Quimica - Universidade de Sao Paulo
	/db_xref="taxon:9606"	Av. Prof. Lineu Prestes 748 sala 1200, 05508-900 Sao Paulo - SP,
	/clone="HENBA1004961"	Brasil
	/note="Vector: PME18SFL3"	Tel: +55-11-3091-2173
	/tissue type="whole embryo, mainly head"	Fax: +55-11-3091-2186
	/dev_stage="embryo, 10 weeks"	Email: verj@iq.usp.br
	/clone lib="HENBA1"	This sequence was derived from the PAPESP Schistosoma mansoni EST Genome Project. All sequences in the project were assembled and annotated. This entry and all the assembled sequences can be seen in the following URL http://bioinfo.iq.usp.br/schioto/
	/note="Vector: PME18SFL3"	Plate: MP1-0018U-V031 row: 7 column: H.
REFERENCE	1 (bases 1 to 849)	FEATURES Location/Qualifiers
AUTHORS Wang, J.-K., Tanurdic, M. and Chapple, C.		
TITLE Functional analysis and comparative genomics of expressed sequence tags from the lycophyte Selaginella moellendorffii		
JOURNAL BMC Genomics 6 (1), 85 (2005)		
PUBLMED 15938755		
COMMENT Contact: Chapple, C.		
ORGANISM Department of Biochemistry		
ORGANISM Purdue University		

1. .340
 /organism="Schistosoma mansoni"
 /mol_type="mRNA"
 /db_xref="taxon:6183"
 /clone="MFI-0018U-Y031-H07.B"
 /sex="female"
 /dev_stage="adult"
 /lab_host="Meocricetus auratus"
 /clone_lib="MFI-0018"
 /note="Vector: SureClone"

ORIGIN

Query Match	18.0%;	Score 34.6;	DB 6;	Length 918;
Best Local Similarity	55.4%;	Pred. No.	11;	
Matches	67;	Conservative	0;	Gaps 0;
Qy	42	TTGCTGGATATTGGGAGAAACAAATACTGCAATGGGAATGCACTGGAGAACCGAGG 101		
Db	644	TTGCTGGATGGAGATCACAGTGGAGTAGTGTGCTGTGGACTAAATAGGGG 703		

ORIGIN

Query Match	18.0%;	Score 34.6;	DB 6;	Length 340;
Best Local Similarity	54.3%;	Pred. No.	8.7;	
Matches	70;	Conservative	0;	Gaps 0;
Qy	32	GCAAATACATGGCTGATATTGGGAAACAATACTGCAATACGGATGCACATGGA 91		
Db	177	GTAATCTCAGTCAGTTCGATATAATCTGATTCAGTATGATTAGCAATCGGA 118		
Qy	92	AGCACCGAGGAGGTANTACGCTATGCTAGGGATTTGGTATGGTATGGAGATTG 151		
Db	117	GTCATAGGAAATTAGACATCACTGCTTGAGGATATGCCATATTGACTAATAAT 58		
Qy	152	CGATATGTA 160		
Db	57	TCCGATAGGA 49		

RESULT 7
 BU552525 LOCUS BU552525 mRNA linear EST 16-SEP-2002
 DEFINITION AGENCOURT 10333015 NIH_MGC_40 Homo sapiens cDNA clone IMAGE:65763185 ; mRNA sequence.
 ACCESSION BU552525
 VERSION BU552525.1
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Bacteria; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
 Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
 Hominidae; Homo
 Unpublished (1999).
 Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-r@mail.nih.gov
 Tissue Procurement: DCTD/DTP
 cDNA Library Preparation: Rubin Laboratory
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MCC clone distribution information can be found through the I.M.A.G.E. Consortium/LINN at:
<http://image.llnl.gov>
 Plate: LLMC274 row: k column: 06
 High quality sequence stop: 736.
 Location.Qualifiers

FEATURES

Source

1. .918
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="MAGB:6576318"
 /tissue_type="carcinoma, cell line"
 /lab_host="DH10B (phage-resistant)"
 /note="Organ: Prostate; Vector: pOTB7; Site:1: XbaI;
 Site 2: EcoRI; cDNA made by oligo-dT priming.
 Directionally cloned into EcoRI/XbaI sites using the following 5' adapter: GCGACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).

Note: this is a NIH_MGC Library."

ORIGIN

Query Match	18.0%;	Score 34.6;	DB 5;	Length 918;
Best Local Similarity	55.4%;	Pred. No.	11;	
Matches	67;	Conservative	0;	Gaps 0;
Qy	42	TTGCTGGATATTGGGAGAAACAAATACTGCAATGGGAATGCACTGGAGAACCGAGG 101		
Db	644	TTGCTGGATGGAGATCACAGTGGAGTAGTGTGCTGTGGACTAAATAGGGG 703		

ORIGIN

Query Match	102 AGGTAAATTAGGGTTATTGTACGGATTGGGTGCTATTGGGAAGGATTGCGATAGTAC 161
Db	704 ACTATGTACAGCATTTGGGAGGGTACTTGTATTAGAAGCTGCGCAATGATCC 763
Qy	102 AGGTAAATTAGGGTTATTGTACGGATTGGGTGCTATTGGGAAGGATTGCGATAGTAC 161
Db	704 ACTATGTACAGCATTTGGGAGGGTACTTGTATTAGAAGCTGCGCAATGATCC 763

RESULT 8
 DR738811/c LOCUS DR738811 mRNA linear EST 18-JUL-2005
 DEFINITION PGAS084028 Triticum aestivum PGAS: Library 6 cDNA sequence.
 ACCESSION DR738811
 VERSION DR738811.1
 KEYWORDS EST.
 SOURCE Triticum aestivum (bread wheat)
 ORGANISM Triticum aestivum
 Bacteria; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidae; Triticeae; Triticum.
 REFERENCE 1 (bases 1 to 1080)
 AUTHORS Allard, F., Crosby, W.L., Danyluk, J., Eudes, F., Frick, M., Gaudet, D., Genswein, B., Graf, R., Hrycan, L.D., Iarchoe, A., Links, M.G., McCarthy, E.L., Monroy, A., Muzik, I., Nilson, D., Panniket, C., Roach, J.L. and Sarhan, F.
 TITLE Functional Genomics of Abiotic Stress In Wheat and Canola Crops
 JOURNAL Unpublished (2003).
 COMMENT Contact: Patrick Gullick
 Plant Molecular Biology
 Concordia University, Department of Biology
 7141 Sherbrooke St. West, Montreal, Quebec H4B 1R6, Canada
 Tel: 514 848 2424 Ext 3407.
 Fax: 514 848 2881.
 Email: pgulick@alcor.concordia.ca
 This sequence is the direct result of the base calling software Phred (default parameters). It is the raw base calls. To aid in the identification of the high quality insert the software Lucy (default parameters) has been run on this sequence. Lucy identified the region [105,189].
 Plate: L6B202 row: N column: 17.
 Location/Qualifiers
 1. .1080
 /organism="Triticum aestivum"
 /mol_type="mRNA"
 /db_xref="taxon:14565"

/clone lib="Triticum aestivum PGAS: Library 6 CAP GATE 1"
 /note="Organ: Crown and leaf; Vector: PCMV_SPORT6; Crown (50%) and leaf (50%) tissues from wheat cultivar Norstar after short exposure times to low temperature in the light and in the dark. 12 mRNA populations were combined before constructing the library. The first 6 populations were transferred to 20°C from wheat cultivar Norstar after 7 days of growth at 20°C. The first 6 populations were transferred to 4°C in the light. 1cm crown sections and green leaf tissue were separately harvested after 1, 3, and 6 hours of low temperature exposure. The last 6 populations: After 7 days of growth at 20°C, wheat plants were transferred to 4°C in

RESULT 13
DR423779

GenCore version 5.1.6
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OM nucleic - nucleic search, using SW model

Run on: January 21, 2006, 21:23:21 ; Search time 303 Seconds
(without alignment)
4223.172 Million cell updates/sec

Title: US-10-721-793-115

Perfect score: 192
Sequence: 1 aaagacggttatcggttggaa.....ccctttctataaaaatgc 192

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 499697 seqs, 3332346308 residues

Total number of hits satisfying chosen parameters: 9993994

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Genesegn_21:
 1: genesegn1980s:
 2: genesegn1990s:
 3: genesegn2000s:
 4: genesegn2001as:
 5: genesegn2001bs:
 6: genesegn2002as:
 7: genesegn2002bs:
 8: genesegn2003as:
 9: genesegn2003bs:
 10: genesegn2003cs:
 11: genesegn2003ds:
 12: genesegn2004as:
 13: genesegn2004bs:
 14: genesegn2005s:
 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match	Length	DB	ID	Description
1	192	100.0	192	14	ADY85771		Ady85771 DNA encod
2	192	100.0	323	14	ADY85769		Ady85769 DNA encod
3	190.4	99.2	323	14	ADY85773		Ady85773 DNA encod
4	190.4	99.2	323	14	ADY85807		Ady85807 DNA encod
5	156.8	81.7	192	14	ADY85805		Ady85805 DNA encod
6	156.8	81.7	320	14	ADY85801		Ady85801 DNA encod
7	155.2	80.8	192	14	ADY85749		Ady85749 DNA encod
8	155.2	80.8	320	14	ADY85849		Ady85849 DNA encod
9	152	79.2	192	14	ADY85703		Ady85703 DNA encod
10	152	79.2	258	14	ADY85701		Ady85701 DNA encod
11	150.4	78.3	192	14	ADY85699		Ady85699 DNA encod
12	150.4	78.3	254	14	ADY85697		Ady85697 DNA encod
13	145.4	75.7	198	14	ADY85747		Ady85747 DNA encod
14	145.4	75.7	323	14	ADY85745		Ady85745 DNA encod
15	126.8	66.0	189	14	ADY85767		Ady85767 DNA encod
16	126.8	66.0	311	14	ADY85765		Ady85765 DNA encod
17	124.6	64.9	323	14	ADY85757		Ady85757 DNA encod
18	124.6	64.9	323	14	ADY85761		Ady85761 DNA encod
19	123.2	64.2	192	14	ADY85763		Ady85763 DNA encod

ALIGNMENTS

RESULT 1
ID ADY85771 standard; DNA; 192 BP.
XX
AC ADY85771;
XX 02-JUN-2005 (first entry)
XX DS DNA encoding the scorpion Cel3 toxin mature protein Seq 115.
XX KW Gene; ds; toxin; sodium channel; immunogenicity; antigen;
KW antibody production; venom; vaccine; diagnosis.
XX Centruroides elegans.
OS
XX US2005065331-A1.
EN
XX PD 24-MAR-2005.
XX PP 26-NOV-2003; 2003US-00721793.
XX PR 02-DEC-2002; 2002US-0430067P.

SUMMARIES

Result No.	Score	Query	Match	Length	DB	ID	Description
1	192	100.0	192	14	ADY85771		Ady85771 DNA encod
2	192	100.0	323	14	ADY85769		Ady85769 DNA encod
3	190.4	99.2	323	14	ADY85773		Ady85773 DNA encod
4	190.4	99.2	323	14	ADY85807		Ady85807 DNA encod
5	156.8	81.7	192	14	ADY85805		Ady85805 DNA encod
6	156.8	81.7	320	14	ADY85801		Ady85801 DNA encod
7	155.2	80.8	192	14	ADY85749		Ady85749 DNA encod
8	155.2	80.8	320	14	ADY85849		Ady85849 DNA encod
9	152	79.2	192	14	ADY85703		Ady85703 DNA encod
10	152	79.2	258	14	ADY85701		Ady85701 DNA encod
11	150.4	78.3	192	14	ADY85699		Ady85699 DNA encod
12	150.4	78.3	254	14	ADY85697		Ady85697 DNA encod
13	145.4	75.7	198	14	ADY85747		Ady85747 DNA encod
14	145.4	75.7	323	14	ADY85745		Ady85745 DNA encod
15	126.8	66.0	189	14	ADY85767		Ady85767 DNA encod
16	126.8	66.0	311	14	ADY85765		Ady85765 DNA encod
17	124.6	64.9	323	14	ADY85757		Ady85757 DNA encod
18	124.6	64.9	323	14	ADY85761		Ady85761 DNA encod
19	123.2	64.2	192	14	ADY85763		Ady85763 DNA encod

This invention relates to novel scorpion toxin polypeptides and the encoded proteins thereof having any one of 142 fully defined amino acid sequences given in the specification. Specifically, it refers to long chain toxins that block the sodium channels of excitable cells and also

Novel isolated scorpion toxin polypeptide, useful for preventing envenomation from scorpion stings, and as vaccine to prevent envenomation from venom of scorpions of genus Centruroides.

Claim 3; SEQ ID NO 115; 135pp; English.

XX PT Novel isolated scorpion toxin polypeptide, useful for preventing envenomation from scorpion stings, and as vaccine to prevent envenomation from venom of scorpions of genus Centruroides.

XX PR 02-DEC-2002; 2002US-0430067P.

XX PA (UNIV MEXICO NACIONAL AUTONOMA.
(STLA-) LAB SILLANES SA DE CV.

XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
PI Posbani PLD;

XX DR WPT; 2005-252753/26.
DR P-PSDB; ADY85772.

XX PS Claim 3; SEQ ID NO 115; 135pp; English.

XX PT This invention relates to novel scorpion toxin polynucleotides and the encoded proteins thereof having any one of 142 fully defined amino acid sequences given in the specification. Specifically, it refers to long chain toxins that block the sodium channels of excitable cells and also

CC short chain toxins that affect Erg type potassium channels. The present
 CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the in-
 CC vido effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC Centruroides. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identifying antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC mature protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the Centruroides genus, given in an exemplification of the
 CC invention.

XX Sequence 192 BP; 59 A; 35 C; 53 G; 45 T; 0 U; 0 Other;

Query Match Score 192; DB 14; Length 192;

Best Local Similarity 100.0%; Pred. No. 5e-55; Mismatches 0; Indels 0; Gaps 0;

Db 1 AAAGACGGTTATCTGGTGACAGACGGCNGCAATACTAACACTTGTGGAATTGGAGAA 60

Qy 61 AACAAATACTGGAATAGGGAATAGGGAATAGGGAATTAGGTTATTGC 120

Db 61 AACAAATACTGCAATAGGGAATAGGGAATAGGGAATTAGGTTATTGC 120

Qy 121 TAGGATTGGCTGCTATGGCAAGGATTCGCGATAACCCTGCCCCCTCT 180

Db 121 TAGGATTGGCTGCTATGGCAAGGATTCGCGATAACCCTGCCCCCTCT 180

Qy 181 AATAAAAGATGC 192

Db 181 AATAAAAGATGC 192

RESULT 2
 ADY85769
 ID ADY85769 standard; DNA; 323 BP.
 AC ADY85769;
 DT 02-JUN-2005 (first entry)
 DE DNA encoding the full length scorpion Cet13 toxin protein Seq 113.
 KW gene; ds; toxin; sodium channel; immunogenicity; antigen;
 KW antibody production; venom; vaccine; diagnosis.
 OS Centruroides elegans.
 US2005065331-A1.

XX 24-MAR-2005.
 XX 26-NOV-2003; 2003US-00721793.
 XX PR 02-DEC-2002; 2002US-0430067P.
 XX PA (UVM-) UNIV MEXICO NACIONAL AUTONOMA.
 XX (SILA-) LAB SIANES SA DE CV.
 PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
 Possani PLD;
 XX WPI; 2005-252753/26.
 DR P-PSDB; ADY85770.
 XX PT Novel isolated scorpion toxin polypeptide, useful for preventing

envenomation from scorpion stings and as vaccine to prevent envenomation
 From venom of scorpions of genus Centruroides.

XX Claim 1; SEQ ID NO 113; 135pp; English.

This invention relates to novel scorpion toxin polynucleotides and the
 encoded proteins thereof having any one of 142 fully defined amino acid
 sequences given in the specification. Specifically, it refers to long
 chain toxins that block the sodium channels of excitable cells and also
 short chain toxins that affect Erg type potassium channels. The present
 invention describes immunogenic or antigenic compositions comprising a
 scorpion toxin protein or fragment thereof, which can be used for the
 generation of antibodies that are able to bind to and neutralize the in
 vivo effects of scorpion venom. As such, they can be used in compositions
 or appropriate recombinant fusion proteins in the development of vaccines
 that can prevent envenomation from stings of scorpions of the genus
 Centruroides. Furthermore, it provides a diagnostic method that uses an
 immunogenic matrix for the purification of specific immunoglobulins
 present in a sample that can determine the species of scorpion that has
 stung an individual through the detection of identifying antibodies. In
 addition, it provides methods that are useful for treating envenomation
 from scorpion stings. This polynucleotide is a DNA sequence encoding the
 full length protein of a sodium channel modifier toxin isolated from a
 scorpion of the Centruroides genus, given in an exemplification of the
 invention.

SQ Sequence 323 BP; 99 A; 56 C; 82 G; 86 T; 0 U; 0 Other;

Query Match Score 192; DB 14; Length 323;
 Best Local Similarity 100.0%; Pred. No. 6.1e-55;
 Matches 192; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 AAAGACGGTTATCTGGTGACAGACGGCNGCAATACTAACACTTGTGGAATTGGAGAA 60
 Db 65 AAAGACGGTTATCTGGCAAGACGGGGTGCATAATACGTTATGGGATATTGCAGAAA 124
 Qy 61 AACAAATACTGCAATAGGGAATAGGGAATTAGGATGCACTGGGAAATAGGTAATACGGTATTGC 120
 Db 125 AACAAATACTGCAATAGGGAATAGGGAATTAGGATGCACTGGGAAATAGGTAATACGGTATTGC 184
 Qy 121 TACGGATTGGCTGCTATGGCAAGGATTCGCGATAACCCTGCCCCCTCT 180
 Db 185 TACGGATTGGCTGCTATGGCAAGGATTCGCGATAACCCTGCCCCCTCT 244
 Qy 181 AATAAAAGATGC 192
 Db 245 AATAAAAGATGC 256

RESULT 3
 ADY85775
 ID ADY85775 standard; DNA; 192 BP.
 AC ADY85775;
 XX 02-JUN-2005 (first entry)
 XX DT 02-JUN-2005
 XX DB DNA encoding the scorpion Cet13b toxin mature protein Seq 119.
 XX KW gene; ds; toxin; sodium channel; immunogenicity; antigen;
 KW antibody production; venom; vaccine; diagnosis.
 OS Centruroides elegans.
 XX US2005065331-A1.
 XX PR 24-MAR-2005.
 XX PR 26-NOV-2003; 2003US-00721793.
 XX PR 02-DEC-2002; 2002US-0430067P.
 XX PD 24-MAR-2005.
 XX PF 26-NOV-2003; 2003US-00721793.
 XX PR 02-DEC-2002; 2002US-0430067P.
 XX PR 24-MAR-2005.
 XX PF 26-NOV-2003; 2003US-00721793.
 XX PR 02-DEC-2002; 2002US-0430067P.
 XX PR 24-MAR-2005.
 XX PA (UVM-) UNIV MEXICO NACIONAL AUTONOMA.

PA (SILA-) LAB SILANES SA DE CV.
 XX Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
 PI Possani PLD;
 XX WPI; 2005-252753/26.
 DR P-PSDB; ADY85773.

XX Novel isolated scorpion toxin polypeptide, useful for preventing envenomation from scorpion stings, and as vaccine to prevent envenomation from venom of scorpions of genus Centruroides.
 PT
 XX PS ; SEQ ID NO 119; 135pp; English.
 XX This invention relates to novel scorpion toxin polymucleotides and the encoded proteins thereof having any one of 142 fully defined amino acid sequences given in the specification. Specifically, it refers to long chain toxins that block the sodium channels of excitable cells and also short chain toxins that affect Br_g type potassium channels. The present invention describes immunogenic or antigenic compositions comprising a scorpion toxin protein or fragment thereof, which can be used for the generation of antibodies that are able to bind to and neutralize the in vivo effects of scorpion venom. As such, they can be used in compositions or appropriate recombinant fusion proteins in the development of vaccines that can prevent envenomation from stings of scorpions of the genus Centruroides. Furthermore, it provides a diagnostic method that uses an immunogenic matrix for the purification of specific immunoglobulins present in a sample that can determine the species of scorpion that has stung an individual through the detection of identifying antibodies. In addition, it provides methods that are useful for treating envenomation from scorpion stings. This polynucleotide is a DNA sequence encoding the mature protein of a sodium channel modifier toxin isolated from a scorpion of the Centruroides genus, given in an exemplification of the invention.
 XX Sequence 192 BP; 59 A; 36 C; 53 G; 44 T; 0 U; 0 Other;
 SQ Query Match 99.2%; Score 190.4; DB 14; Length 192;
 Best Local Similarity 99.5%; Pred. No. 1, 7e-54;
 Matches 191; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY	1	AAAGACGGTTATCGTGGACAGACGGGCTGCAAATACATGTGGATAATGGGAGAA	60
DB	1	AAAGACGGTTATCGTGGACAGACGGGCTGCAAATACATGTGGATAATGGGAGAA	60

QY 61 AACAAATACTGAATATGGAAATGCAATGGAAGGCCAGGGTAATTACGGCTATTGC 120
 DB 61 AACAAATACTGAATATGGAAATGCAATGGAAGGCCAGGGTAATTACGGCTATTGC 120

QY 121 TAGGATTGGGCTATTCGGAAAGGATGTGCCATAGAACCGACTGGCCCTCT 180
 DB 121 TAGGATTGGGCTATTCGGAAAGGATGTGCCATAGAACCGACTGGCCCTCT 180

QY 181 AATAAAGATGC 192
 DB 181 AATAAAGATGC 192

RESULT 4
 ADY85773
 ID ADY85773 standard; DNA; 323 BP.
 XX DT 02-JUN-2005 (first entry)
 DB DNA encoding the full length scorpion Ce13b toxin protein Seq 117.
 XX Gene; ds; toxin; sodium channel; immunogenicity; antigen;
 KW antibody production; venom; vaccine; diagnosis.
 XX OS Centruroides elegans.

PN US2005065331-A1.
 XX PD 24-MAR-2005.
 XX PF 26-NOV-2003; 2003US-00721793.
 XX PR 02-DEC-2002; 2002US-0430067P.
 XX PA (UYMB-) UNIV MEXICO NACIONAL AUTONOMA.
 PA (SILA-) LAB SILANES SA DE CV.
 XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
 PI Possani PLD;
 XX WPI; 2005-252753/26.
 DR P-PSDB; ADY85774.

XX Novel isolated scorpion toxin polypeptide, useful for preventing envenomation from scorpion stings, and as vaccine to prevent envenomation from venom of scorpions of genus Centruroides.
 XX Claim 1; SEQ ID NO 117; 135pp; English.
 PS This invention relates to novel scorpion toxin polymucleotides and the encoded proteins thereof having any one of 142 fully defined amino acid sequences given in the specification. Specifically, it refers to long chain toxins that block the sodium channels of excitable cells and also short chain toxins that affect Br_g type potassium channels. The present invention describes immunogenic or antigenic compositions comprising a scorpion toxin protein or fragment thereof, which can be used for the generation of antibodies that are able to bind to and neutralize the in vivo effects of scorpion venom. As such, they can be used in compositions or appropriate recombinant fusion proteins in the development of vaccines that can prevent envenomation from stings of scorpions of the genus Centruroides. Furthermore, it provides a diagnostic method that uses an immunogenic matrix for the purification of specific immunoglobulins present in a sample that can determine the species of scorpion that has stung an individual through the detection of identifying antibodies. In addition, it provides methods that are useful for treating envenomation from scorpion stings. This polynucleotide is a DNA sequence encoding the mature protein of a sodium channel modifier toxin isolated from a scorpion of the Centruroides genus, given in an exemplification of the invention.

XX Sequence 323 BP; 99 A; 57 C; 83 G; 84 T; 0 U; 0 Other;
 SQ Query Match 99.2%; Score 190.4; DB 14; Length 323;
 Best Local Similarity 99.5%; Pred. No. 2.1e-54;
 Matches 191; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY	1	AAGACGGTTATCGTGGACAGACGGGCTGCAAATACATGTGGATAATGGGAGAA	60
DB	65	AAGACGGTTATCGTGGACAGACGGGCTGCAAATACATGTGGATAATGGGAGAA	60

QY 61 AACAAATACTGAATATGGAAATGCAATGGAAGGCCAGGGTAATTACGGCTATTGC 120
 DB 61 AACAAATACTGAATATGGAAATGCAATGGAAGGCCAGGGTAATTACGGCTATTGC 120

QY 125 AACAAATACTGAATATGGAAATGCAATGGAAGGCCAGGGTAATTACGGCTATTGC 184
 DB 125 AACAAATACTGAATATGGAAATGCAATGGAAGGCCAGGGTAATTACGGCTATTGC 184

QY 181 TACCGATTGGGCTATTCGGAAAGGATGTGGATAGTACACCGACTGGCCCTCT 180
 DB 185 TACCGATTGGGCTATTCGGAAAGGATGTGGATAGTACACCGACTGGCCCTCT 180

QY 181 AATAAAGATGC 192
 DB 245 AATAAAGATGC 192

RESULT 5
 ADY85807
 ID ADY85807 standard; DNA; 192 BP.
 XX AC ADY85807;
 XX OS

DT	02-JUN-2005	(first entry)	Db	181 AATAAAACATGC 192
XX	DNA encoding the bark scorpion CseVta toxin mature protein Seq 151.			
KW	gene; ds; toxin; sodium channel; immunogenicity; antigen;			
KW	antibody production; venom; vaccine; diagnosis.			
XX	Centruroides sculpturatus.			
OS				
XX	US2005065331-A1.			
PN	PR 02-DEC-2002; 2002US-0430067P.			
XX	PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.			
PA	(SILA-) LAB SILLANES SA DE CV.			
XX	PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;			
PI	Possani PLD;			
XX	DR WPI: 2005-252753/26.			
DR	P-PSDB; ADY85808.			
XX	PT Novel isolated scorpion toxin polypeptide, useful for preventing PT envenomation from scorpion stings, and as vaccine to prevent envenomation PT from venom of scorpions of genus Centruroides.			
XX	PS Claim 3, SEQ ID NO 151; 135pp; English.			
XX	This invention relates to novel scorpion toxin polynucleotides and the encoded proteins thereof having any one of 142 fully defined amino acid sequences given in the specification. Specifically, it refers to long chain toxins that block the sodium channels of excitable cells and also short chain toxins that effect Erg type potassium channels. The present invention describes immunogenic or antigenic compositions comprising a scorpion toxin protein or fragment thereof, which can be used for the generation of antibodies that are able to bind to and neutralize the in vivo effects of scorpion venom. As such, they can be used in compositions or appropriate recombinant fusion proteins in the development of vaccines that can prevent envenomation from stings of scorpions of the genus Centruroides. Furthermore, it provides a diagnostic method that uses an immunogenic matrix for the purification of specific immunoglobulins present in a sample that can determine the species of scorpion that has stung an individual through the detection of identifying antibodies. In addition, it provides methods that are useful for treating envenomation from scorpion stings. This polynucleotide is a DNA sequence encoding the mature protein of a sodium channel modulator toxin isolated from a scorpion of the Centruroides genus, given in an exemplification of the invention.			
XX	SQ Sequence 192 BP; 62 A; 32 C; 51 G; 47 T; 0 U; 0 Other;			
Query Match	81.7%; Score 156.8; DB 14; Length 192;			
Best Local Similarity	88.5%; Pred. No. 4.9e-43;			
Matches	170; Conservative 0; Mismatches 22; Indels 0; Gaps 0;			
Qy	1 AAAGACGGTTATCTGGTGCAGACGGGTGCAATACTTGCTGATATTGGGAGAA 60			
Db	1 AAGGACCGTTATCTAGTGAAGAACGGCTGCAAAAAGACTTGCTAATTGGGAGAA 60			
SQ	Sequence 320 BP; 100 A; 51 C; 80 G; 89 T; 0 U; 0 Other;			
Query Match	81.7%; Score 155.8; DB 14; Length 320;			
Best Local Similarity	88.5%; Pred. No. 5.9e-43;			
Matches	170; Conservative 0; Mismatches 22; Indels 0; Gaps 0;			
Qy	1 AAAGACGGTTATCTGGTGCAGACGGGTGCAATACTTGCTGATATTGGGAGAA 60			
Db	1 AACAAATACCTCAATGGGATGGCAGCATGGAAAGCCGAGGTAAATGGCTATTC 120			
Db	61 AACAGTTTCAATGGGATGGCAGCATGGAAATGGCTATTC 120			
Qy	121 TACGGATTGGTGTGATGGCAAGGATGTCGGATAGTACACCACTGGCCCTTC 180			
Db	121 TAGGGTTGGGTGATGGCAAGGATGCCGGATAGTACACAGACTGGCCCTTC 180			
Qy	181 AATAAAAGATGC 192			

Db 122 AACGATTTCGAAATAGCAATGGACATAAGGCTAGTGTGCTTATGGCTATTC 181
 Qy 121 TAGGGATTGGTGCATPATGCCAAGGATGTCGATAGTAGCACCAGCTGCCCCCTCT 180
 Db 182 TAGGGATTGGTGCATPATGCCAAGGATGTCGATAGTAGCACCAGCTGCCCCCTCT 241
 Qy 181 AATAAACATGC 192
 Db 242 AATAAACATGC 253

RESULT 7
ID ADY85851 standard; DNA; 192 BP.
AC ADY85851;
DT 02-JUN-2005 (first entry)
XX DNA encoding the bark scorpion C_bEtx toxin mature protein Seq 195.
XX gene; ds; toxin; sodium channel; immunogenicity; antigen;
KW antibody production; venom; vaccine; diagnosis.
XX Centruroides sculpturatus.
OS US2005065331-A1.
XX PN 24-MAR-2005.
XX PP 26-NOV-2003; 2003US-00721793.
XX PR 02-DEC-2002; 2002US-0430067P.
XX PA (UIME-) UNIV MEXICO NACIONAL AUTONOMA.
PA (SILA-) LAB SILANES SA DE CV.
XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
PI Possani PLD;
XX WPI; 2005-252753/26.
DR P-PSDB; ADY85852.
XX PR Novel isolated scorpion toxin polypeptide, useful for preventing
 PR envenomation from scorpion stings, and as vaccine to prevent envenomation
 PR from venom of scorpions of genus Centruroides.
PS Claim 3; SEQ ID NO 195; 135pp; English.
XX This invention relates to novel scorpion toxin polynucleotides and the
 CC encoded proteins thereof having any one of 142 fully defined amino acid
 CC sequences given in the specification. Specifically, it refers to long
 CC chain toxins that block the sodium channels of excitable cells and also
 CC short chain toxins that affect Br_g type potassium channels. The present
 CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the
 CC scorpionization of antibodies that are able to bind to and neutralize the in
 CC vivo effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC Centruroides. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identity of antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC mature protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the Centruroides genus, given in an exemplification of the
 CC invention.
Sequence 192 BP; 62 A; 29 C; 54 G; 47 T; 0 U; 0 Other;
SQ

Query Match 80 8%; Score 155.2; DB 14; Length 192;
 Best Local Similarity 88.0%; Pred. No. 1.7e-42;
 Matches 169; Conservative 0; Mismatches 23; Indels 0; Gaps 0;

Qy 1 AAAGCGGTATCTGGACAAGGCGCTGCAATAACATGGCTGGATTTGGGAGAA 60
 Db 1 AAGGAGGTATCTGGCTGAAAGGATGGCTGGATTTGGGAGAA 60

Qy 61 AACAAATACGCAATAGGGATGCAATGGAGGCCAGGAGGTTACGGCTATTGCG 120
 Db 61 AACGATTATCCAAAGGGATGTAATGGAGCACATGGAGGCCAGGAGGTTACGGCTATTGCG 120

Qy 121 TACGGATTGGTGGCTATGGGAAGGATGGCTGAGTAACTGGACTTGCCCTTCT 180
 Db 121 TACGGATTGGTGGCTATGGGAAGGATGGCTGAGTAACTGGACTTGCCCTTCT 180

Qy 181 AATAAAAGATGC 192
 Db 181 AATAAAACATGC 192

RESULT 8
ID ADY85849 standard; DNA; 320 BP.
XX XX
AC ADY85849;
XX XX
XX 02-JUN-2005 (first entry)
XX XX
DE DNA encoding the full length bark scorpion C_bEtx toxin protein Seq 193.
XX XX
KW Gene; ds; toxin; sodium channel; immunogenicity; antigen;
 antibody production; venom; vaccine; diagnosis.

XX XX
OS Centruroides sculpturatus.
XX XX
PN US2005065331-A1.
XX PN 24-MAR-2005.
XX PP 26-NOV-2003; 2003US-00721793.
XX PR 02-DEC-2002; 2002US-0430067P.
XX PA (UIMB-) UNIV MEXICO NACIONAL AUTONOMA.
PA (SILA-) LAB SILANES SA DE CV.
XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;
PI Possani PLD;
XX WPI; 2005-252753/26.
DR P-PSDB; ADY85850.

XX Novel isolated scorpion toxin polypeptide, useful for preventing
 PR envenomation from scorpion stings, and as vaccine to prevent envenomation
 PR from venom of scorpions of genus Centruroides.
PS Claim 1; SEQ ID NO 193; 135pp; English.

XX This invention relates to novel scorpion toxin polynucleotides and the
 CC encoded proteins thereof having any one of 142 fully defined amino acid
 CC sequences given in the specification. Specifically, it refers to long
 CC chain toxins that block the sodium channels of excitable cells and also
 CC short chain toxins that affect Br_g type potassium channels. The present
 CC invention describes immunogenic or antigenic compositions comprising a
 CC scorpion toxin protein or fragment thereof, which can be used for the
 CC scorpionization of antibodies that are able to bind to and neutralize the in
 CC vivo effects of scorpion venom. As such, they can be used in compositions
 CC or appropriate recombinant fusion proteins in the development of vaccines
 CC that can prevent envenomation from stings of scorpions of the genus
 CC Centruroides. Furthermore, it provides a diagnostic method that uses an
 CC immunogenic matrix for the purification of specific immunoglobulins
 CC present in a sample that can determine the species of scorpion that has
 CC stung an individual through the detection of identity of antibodies. In
 CC addition, it provides methods that are useful for treating envenomation
 CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
 CC mature protein of a sodium channel modifier toxin isolated from a
 CC scorpion of the Centruroides genus, given in an exemplification of the
 CC invention.
Sequence 192 BP; 62 A; 29 C; 54 G; 47 T; 0 U; 0 Other;
SQ

CC stung an individual through the detection of identifying antibodies. In
CC addition, it provides methods that are useful for treating envenomation
CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
CC full length protein of a sodium channel modulator toxin isolated from a
CC scorpion of the Centruroides genus, given in an exemplification of the
CC invention.

XX Sequence 320 BP; 99 A; 49 C; 85 G; 87 T; 0 U; 0 Other;
XX Query Match 80.8%; Score 155.2; DB 14; Length 320;

XX Best Local Similarity 88.0%; Pred. No. 2 1e-42; Mismatches 0; Indels 0; Gaps 0;
XX Matches 169; Conservation 0;

Qy 1 AAAAGACGGTTATCTCGTGTGACAAGACGGCGCAAAATACTGCTGGATAATTGGGAGAA 60
Db 62 AAGGAAGCTTAATCTGGTGTGACTAAAGCTGSCAAlAAAATAATTGCTGGAAATTTGGGAGAT 121

Db 61 AACAAATACTGCAATAAGGAAATGGCAATGGCAGGAGGTAAATAGGGTATTGC 120

Qy 121 TAGGGATTGGGTGTATGGCAAGGATGGTGTGCGATAAGTAGACCCGACTGCCCCCTCT 180

Db 182 TAGGGATTGGGTGTATGGCAAGGATGGTGTGCGATAAGTAGACCCGACTGCCCCCTCT 241

Qy 181 AATAAAAGATGC 192

Db 242 AATAAAACATGC 253

RESULT 9
ID ADY85703 standard; DNA, 192 BP.

AC ADY85703;
DT 02-JUN-2005 (first entry)

DB DNA encoding the bark scorpion Cex10 toxin mature protein Seq 47.

XX gene; ds; toxin; sodium channel; immunogenicity; antigen;

XX antibody production; venom; vaccine; diagnosis.

XX Centruroides exilicauda.

XX PN US200506531-A1.

XX PD 24-MAR-2005.

XX PF 26-NOV-2003; 2003US-00721793.

XX PR 02-DEC-2002; 2002US-0430067P.

XX PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.

XX PA (SILA-) LAB SILLANES SA DE CV.

XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;

XX PI Posbani PLD;

XX DR WPI: 2005-252753/26.

XX DR P-PSDB; ADY85704.

XX Novel isolated scorpion toxin polypeptide, useful for preventing
XX envenomation from scorpion stings, and as vaccine to prevent envenomation
XX from venom of scorpions of genus Centruroides.

XX Claim 3; SEQ ID NO 47; 135pp; English.

XX This invention relates to novel scorpion toxin polypeptides and the
CC encoded proteins thereof having any one of 142 fully defined amino acid
CC sequences given in the specification. Specifically, it refers to long
CC chain toxins that block the sodium channels of excitable cells and also
CC short chain toxins that affect Erg type potassium channels. The present
CC invention describes immunogenic or antigenic compositions comprising a
CC scorpion toxin protein or fragment thereof, which can be used for the
CC generation of antibodies that are able to bind to and neutralize the in
CC vivo effects of scorpion venom. As such, they can be used in compositions
CC or appropriate recombinant fusion proteins in the development of vaccines
CC that can prevent envenomation from stings of scorpions of the genus
CC Centruroides. Furthermore, it provides a diagnostic method that uses an
CC immunogenic matrix for the purification of specific immunoglobulins
CC present in a sample that can determine the species of scorpion that has
CC stung an individual through the detection of identifying antibodies. In
CC addition, it provides methods that are useful for treating envenomation
CC from scorpion stings. This polynucleotide is a DNA sequence encoding the
CC mature protein of a sodium channel modulator toxin isolated from a
CC scorpion of the Centruroides genus, given in an exemplification of the
CC invention.

XX Sequence 192 BP; 57 A; 34 C; 52 G; 49 T; 0 U; 0 Other;

XX SQ Query Match 79.2%; Score 152; DB 14; Length 192;

XX Best Local Similarity 87.0%; Pred. No. 2.1e-41; Mismatches 0; Indels 0; Gaps 0;

XX Matches 167; Conservative 0; MS matches 0;

XX XX RESULT 10
XX ADY85701

XX ID ADY85701 standard; DNA, 258 BP.

XX XX AC ADY85701;

XX XX OS ADY85701;

XX XX OS ADY85701;

XX XX DT 02-JUN-2005 (first entry)

XX XX DB DNA encoding the full length bark scorpion Cex10 toxin protein Seq 45.

XX XX KW gene; ds; toxin; sodium channel; immunogenicity; antigen;

XX XX KW antibody production; venom; vaccine; diagnosis.

XX XX OS Centruroides exilicauda.

XX XX PN US200506531-A1.

XX XX PD 24-MAR-2005.

XX XX PR 26-NOV-2003; 2003US-00721793.

XX XX PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA.

XX XX PA (SILA-) LAB SILLANES SA DE CV.

XX XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB;

XX XX PI Posbani PLD;

XX XX DR WPI: 2005-252753/26.

XX XX DR P-PSDB; ADY85704.

XX Novel isolated scorpion toxin polypeptide, useful for preventing
CC sequences given in the specification. Specifically, it refers to long
CC chain toxins that block the sodium channels of excitable cells and also
CC short chain toxins that affect Erg type potassium channels. The present
CC invention from scorpion stings, and as vaccine to prevent envenomation

RESULT 14 ADY85745 ID ADY85745 standard; DNA; 323 BP. XX AC ADY85745; XX DT 02-JUN-2005 (first entry) XX DE DNA encoding the full length Mexican scorpion Cn10b toxin protein Seq 89. KW gene; ds; toxin; sodium channel; immunogenicity; antigen; KW antibody production; venom; vaccine; diagnosis. OS Centruroides noxius. XX PN US2005065331-A1. XX PD 24-MAR-2005. PF 26-NOV-2003; 2003US-00721793. XX PR 02-DEC-2002; 2002US-0430067P. XX PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA. PA (SILA-) LAB SILEANES SA DE CV. XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB; PI Possani PLD; XX DR WPI; 2005-252753/26. DR P-PSDB; ADY85745.	Db 122 GAAACAAAAAAACTGGATATGGAATGCCAAGCGAAAACCAGGTTACGGCTAT 181 Qy 118 TGCTAACGGATTGGGTGCTATTGCCAAGGATTGTGGATAGTACCCGACTTGGCCCT 177 Db 182 TGCTAACGGATTGGGTGCTATTGCCAAGGATTGTGGATAGTACCCGACTTGGCCCT 241 Qy 178 TCTATAAAAGATGC 192 Db 242 CCTATAAAACATGC 256
RESULT 15 ADY85767 ID ADY85767 Standard; DNA; 189 BP. XX AC ADY85767; XX DT 02-JUN-2005 (first entry) XX DE DNA encoding the scorpion Ce7 toxin mature protein Seq 111. KW gene; ds; toxin; sodium channel; immunogenicity; antigen; KW antibody production; venom; vaccine; diagnosis. OS Centruroides elegans. XX PN US2005065331-A1. XX PD 24-MAR-2005. PF 26-NOV-2003; 2003US-00721793. XX PR 02-DEC-2002; 2002US-0430067P. XX PA (UYME-) UNIV MEXICO NACIONAL AUTONOMA. PA (SILA-) LAB SILEANES SA DE CV. XX PI Corona VM, Garcia RMC, Gurrola BG, Valdez CNA, Becerril LB; PI Possani PLD; XX WPI ID NO 111; 135pp; English. XX This invention relates to novel scorpion toxin polynucleotides and the encoded proteins thereof having any one of 142 fully defined amino acid sequences given in the specification. Specifically, it refers to long chain toxins that block the sodium channels of excitable cells and also short chain toxins that affect Brg type potassium channels. The present invention describes immunogenic or antigenic compositions comprising a scorpion toxin protein or fragment thereof, which can be used for the generation of antibodies that are able to bind to and neutralize the in vivo effects of scorpion venom. As such, they can be used in compositions or appropriate recombinant fusion proteins in the development of vaccines that can prevent envenomation from stings of scorpions of the genus Centruroides. Furthermore, it provides a diagnostic method that uses an immunogenic matrix for the purification of scorpion toxins of the genus Centruroides. Additionally, it provides methods for treating envenomation from scorpion stings. This polynucleotide is a DNA sequence encoding the full length protein of a sodium channel modifier toxin isolated from a scorpion of the Centruroides genus, given in an exemplification of the invention. XX Sequence 323 BP; 102 A; 57 C; 80 G; 84 T; 0 U; 0 Other; SQ Query Match 75.7%; Score 145.4; DB 14; Length 323; Best Local Similarity 87.7%; Pred. No. 4; Se-39; Matches 171; Conservative 0; Mismatches 21; Indels 3; Gaps 1;	Db 122 GAAACAAAAAAACTGGATATGGAATGCCAAGCGAAAACCAGGTTACGGCTAT 181 Qy 118 TGCTAACGGATTGGGTGCTATTGCCAAGGATTGTGGATAGTACCCGACTTGGCCCT 177 Db 182 TGCTAACGGATTGGGTGCTATTGCCAAGGATTGTGGATAGTACCCGACTTGGCCCT 241 Qy 178 TCTATAAAAGATGC 192 Db 242 CCTATAAAACATGC 256
Qy 1 AAAGACGCTTATCNGTGGCAA---GACGGCTGCAATACACTGGTGGATATTGGGA 57 Qy 62 AAGGAGGGTATCNGTGGCAAAGCACAGGCTGTAATAACACTGGTGGATATTGGGA 121 Qy 58 GAAACAAATACTGCAATAGGGATGCAATGGACAGGCAAGGAGGTTAATTACGGCTAT 117	XX Sequence 189 BP; 55 A; 35 C; 52 G; 47 T; 0 U; 0 Other; SQ Query Match 66.0%; Score 126.8; DB 14; Length 189;

	Best Local Similarity	82.8%	Pred. No.	7.9e-33;	
	Matches	159;	Conservative	0;	Mismatches
					Indels
Dy			1	AAAGCGGGTTATCTGGACAGAGGGCTGCAAAATACACTTGCGGGATATTGGGAGAA	60
Dy			4	RAGGAGGTATCTGGTCAAGGGGGCTGCAATACATTTGGGATTTGGGAGAA	63
Dy			61	AACAAATACTGCAATPGGGATGTGCACATGGAGAGGTATTACGGCTATTGC	120
Dy			64	AACAAATACTGCAATTCGGATGC-----AAAGAGTGTGTGTGTGTG	117
Dy			121	TACGATTTGGGTGCTATTGGAAAGATTGCGATAGTACACCCACTGGCCCTTCT	180
Dy			118	TATGCTTTCGGTGTGCTATTGGAAAGGATTACCGAAGGTACTGACCTG	177
Dy			181	AATAAAAGATGC	192
Dy			178	GATAAAACATGC	189

Search completed: January 21, 2006, 21:36:21
Job time : 303 secs

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OM nucleic - nucleic search, using sw model

Run on: January 21, 2006, 21:28:41 ; Search time 1730 Seconds
 Perfect score: 192 (without alignments)
 Sequence: 6308.637 Million cell updates/sec

Title: US-10-721-793-115
 Scoring table: IDENTITY_NUC
 Gapop 10.0 , Gapext 1.0

Searched: 5883141 seqs, 28421725653 residues

Total number of hits satisfying chosen parameters:
 Minimum DB seq length: 0
 Maximum DB seq length: 2000000000
 Post-processing: Minimum Match 0%
 Maximum Match 100%
 Listing first 45 summaries

Database : GenBmbl:
 .1: gb_ba: *
 2: gb_in: *
 3: gb_env: *
 4: gb_cm: *
 5: gb_ov: *
 6: gb_pat: *
 7: gb_ph: *
 8: gb_pr: *
 9: gb_ro: *
 10: gb_bs: *
 11: gb_sy: *
 12: gb_un: *
 13: gb_vl: *
 14: gb_hig: *
 15: gb_pi: *

19 123.2 64.2 AY351306 Centroroi
 20 123 64.1 AY351306 Centroroi
 21 123 64.1 AY351306 Centroroi
 22 121.6 63.3 AY351305 Centroroi
 23 121.4 63.2 AR163001 Sequence
 24 121.4 63.2 YOB270 C.noxius mR
 25 121.4 63.2 AR163005 Sequence
 26 119.8 60.4 AR163005 Sequence
 27 119.8 62.4 AF338461 Centroroi
 28 119.8 62.4 AF491129 Centroroi
 29 119.8 62.4 AF338456 Centroroi
 30 119.8 62.4 AF338457 Centroroi
 31 119.8 62.4 AF338458 Centroroi
 32 118.2 61.6 AF491130 Centroroi
 33 118.2 61.6 AF338459 Centroroi
 34 118.2 61.6 AF338464 Centroroi
 35 116.6 60.7 AF491134 Centroroi
 36 115 59.9 AF338454 Centroroi
 37 115 59.9 AF338455 Centroroi
 38 113.4 59.1 AY649861 Centroroi
 39 113.4 59.1 AY649862 Centroroi
 40 113.4 59.1 AF338463 Centroroi
 41 112.2 58.4 AF491133 Centroroi
 42 112 58.3 AY649864 Centroroi
 43 105.6 55.0 AY351310 Centroroi
 44 104.8 54.6 AY649871 Centroroi
 45 102.2 53.2 AY649863 Centroroi

ALIGNMENTS

RESULT 1	
LOCUS	AY351300
DEFINITION	Centruroides sculpturatus ; isolate CSIB1 beta-toxin gene, partial cds.
ACCESSION	AY351300
VERSION	AY351300_1 GI:38017458
KEYWORDS	Centruroides sculpturatus (bark scorpion)
SOURCE	Centruroides sculpturatus
ORGANISM	Bukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Buthiida; Buthoidea; Buthiidae; Centruroides.
REFERENCE	1 (bases 1 to 192)
AUTHORS	Zhu S.
TITLE	Alignment of beta-toxin nucleotide sequences
JOURNAL	Unpublished
REFERENCE	2 (bases 1 to 192)
AUTHORS	Zhu S.
TITLE	Direct Submission (24-JUL-2003) Leuven University, Lab of Toxicology, E van Evenstraat, Leuven, Flanders 3000, Belgium
JOURNAL	Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van Evenstraat, Leuven, Flanders 3000, Belgium
FEATURES	Location/Qualifiers
SOURCE	1..192 /organism="Centruroides sculpturatus" /mol type="genomic DNA" /isolate="CSIB1" /db_xref="taxon:218467" <1..>192 mRNA /product="beta-toxin" <1..>192 CDS /codon_start=1 /product="beta-toxin" /protein_id="AAU8035_1" /db_xref="GI:38017458" /translation="KDGGLPDTQTPWPLPNKTC"

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	156.4	82.5	192	AY351300	AY351300 Centroroi
2	156.9	81.7	192	AY351297	AY351297 Centroroi
3	156.8	81.7	319	CUDRATORC	LO5162 Centroroide
4	156.8	81.7	320	AF338460	AF338460 Centroroi
5	155.2	90.8	192	AY351298	AY351298 Centroroi
6	155.2	80.8	192	AY351299	AY351299 Centroroi
7	155.2	80.8	320	AF338448	AF338448 Centroroi
8	155.2	80.8	344	SB1093	SB1093 Centroroide
9	152	79.2	258	AY649868	AY649868 Centroroi
10	150.4	78.3	254	AY649867	AY649867 Centroroi
11	134.4	70.0	192	AY351302	AY351302 Centroroi
12	134.4	70.0	192	AY351303	AY351303 Centroroi
13	132.8	69.2	192	AY351301	AY351301 Centroroi
14	131.2	68.3	192	AY351308	AY351308 Centroroi
15	128	66.7	192	AY351307	AY351307 Centroroi
16	124.6	64.9	335	CUDRATORA	LO5060 Centroroide
17	124.6	64.9	350	CUDRATORB	LO5061 Centroroide
18	123.2	64.2	192	AY351304	AY351304 Centroroi

Query Match 82.5%; Score 158.4%; DB 2; Length 192;
 Best Local Similarity 89.1%; Pred. No. 6.1e-35; Mismatches 0; Gaps 0;
 Matches 171; Conservative 0; Indels 21;

Qy	181 AATAAAAGATGC 192	SOURCE	Centruroides exilicauda
Db	181 AATAAAACATGC 192	ORGANISM	Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Butihida; Buthoidea; Buthidae; Centruroides.
RESULT 6		REFERENCE	1 (bases 1 to 320)
DEFINITION		AUTHORS	Corona M., Valdes-Cruz,N.A., Merino, F., Zurita,M. and Possani,L.D.
ACCESSION	AY351299	TITLE	Genes and peptides from the scorpion Centruroides sculpturatus Ewing, that recognize Na(+) -channels
VERSION	AY351299	JOURNAL	Toxicon 39 (12), 1893-1898 (2001)
KEYWORDS	Centruroides sculpturatus (dark scorpion)	PUBLMED	11600153
SOURCE	Centruroides sculpturatus	REFERENCES	2 (bases 1 to 320)
ORGANISM	Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Butihida; Buthoidea; Buthidae; Centruroides.	AUTHORS	Corona M. and Possani, L.D.
REFERENCE	1 (bases 1 to 192)	TITLE	Direct Submission
AUTHORS	Zhu, S.	JOURNAL	Submitted (22-JAN-2001) Bioestructura Y Reconocimiento Molecular, Instituto de Biotecnologia, Universidad Nacional Autonoma de Mexico, Av. Universidad 2001, Cuernavaca, Morelos 62210, Mexico
TITLE	Alignment of beta-toxin nucleotide sequences	FEATURES	Location/Qualifiers
JOURNAL	Unpublished	source	1. organism="Centruroides exilicauda"
REFERENCE	2 (bases 1 to 192)		/mol type="mRNA"
AUTHORS	Zhu, S.	CDS	/db_xref="taxon:6879"
TITLE	Direct Submission		/country="USA: Tucson, Arizona"
JOURNAL	Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van Evenstrat, Leuven, Flanders 3000, Belgium		/note="Author: Ewing"
FEATURES	Location/Qualifiers		5. .265
source	1. organism="Centruroides sculpturatus"		/codon_start=1
	/mol type="genomic DNA"		/product="sodium-channel modifier toxin precursor CBElx"
	/isolate="CSElx"		/protein_id="AAI23416_1"
mRNA	/db_xref="KEGGLVIDVTKACKKNCKWLGNDNCRECKWKHIGGSYCYGYGRG		/db_xref="GT:16444968"
CDS	<1. .>192 /product="beta-toxin"		/translation="RECKWKHIGGSYGYCYGYGRG/CBGLPDSQTWPLPNKC"
	<1. .>192 /codon_start=1		5. .61
	/product="beta-toxin"		/product="sodium-channel modifier toxin CSElx"
	/protein_id="AAR08034_1"		62. .253
	/db_xref="GI:38017457"		/product="amidation site"
	/translation="KEGYLVIDVTKACKKNCKWLGNDNCRECKWKHIGGSYCYGYGRG/CYCBGLPDSQTWPLPNKC"		
ORIGIN		ORIGIN	
		Query Match	Score 80.8%; Score 155.2%;
		Best Local Similarity	DB 2; Pred. No. 5.1e-34;
		Matches 169; Conservative	Mismatches 0; Mi_matches 0; Indels 23; Gaps 0;
Qy	1 AAGAGCGTTATCTGGTGGACAGAGGGCTGCAATTACACTTGCTGGAATTGGAGAA 60	Qy	1 AAAGAGCGTTATCTGGTGGACAGAGGGCTGCAATTACACTTGCTGGAATTGGAGAA 60
Db	1 AGGGAGCTTACGTGGTGGACCTAAAGGCTGCAAAAATAATTGGCTGAAATTGGAGAT 60	Db	62 AAGGAGGGTATCTGGTGGACTAAGGGCTGCAAAAATAATTGGCTGAAATTGGAGAT 121
Qy	61 AACAAATACTGGCAATTAGGGATGGCCATGCAAGGCCGAGGAAATTAGGGCTATTGC 120	Qy	61 AACAAATACTGGCAATTAGGGATGGCCATGCAAGGCCGAGGAAATTAGGGCTATTGC 120
Db	122 AACGATTATTCGAATTAGGGATGGCAATTAGGGATGGCTGAAATTGGCTGAAATTGGAGAT 180	Db	121 TACGGATTGGTGGTGGATGGCTGAAATTAGGGCTATTGCAGGATGTCGATGAAATTGGCTGAAATTGGAGAT 180
Qy	182 TACGGATTGGTGGTGGATGGCTGAAATTAGGGCTATTGCAGGATGTCGATGAAATTGGCTGAAATTGGAGAT 180	Qy	181 AATAAAAGATGC 192
Db	182 AATAAAACATGC 253	Db	121 TACGGATTGGTGGTGGATGGCTGAAATTAGGGCTATTGCAGGATGTCGATGAAATTGGCTGAAATTGGAGAT 180
Qy	181 AATAAAAGATGC 192	RESULT 8	
Db	121 TACGGATTGGTGGTGGATGGCTGAAATTAGGGCTATTGCAGGATGTCGATGAAATTGGCTGAAATTGGAGAT 180	LOCUS	S81093
Qy	181 AATAAAAGATGC 192	VERSION	344 bp mRNA linear
Db	181 AATAAAACATGC 192	DEFINITION	Centruroides noxius (Mexican scorpion)
		KEYWORD	Centruroides noxius
		SOURCE	Centruroides noxius (Mexican scorpion)
RESULT 7		DEFINITION	Centruroides noxius
AF338448	AF338448	ACCESSION	Centruroides noxius
LOCUS	Centruroides exilicauda	VERSION	Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Butihida; Buthoidea; Buthidae; Centruroides.
DEFINITION	sodium-channel modifier toxin precursor	KEYWORD	1 (bases 1 to 34)
	CSElx mRNA, complete cds.	REFERENCE	Vazquez,A., Tapia,J.V., Eliason,W.K., Martin,B.M., Lebreton,F., Delepiere,M., Possani,L.D. and Becerril,B.
	AF338448	AUTHORS	AF338448 GI:16444967
ACCESSION	AF338448	VERSION	
KEYWORD			

TITLE	Cloning and characterization of the cDNAs encoding Na+ channel-specific toxins 1 and 2 of the scorpion <i>Centruroides noxius</i>	FEATURES	Mor 62250, Mexico
JOURNAL	Hofmann Toxicon 33 (9), 1161-1170 (1995)	source	1..258 /organism="Centruroides exilicauda"
PUBMED	858086		/mol_type="mRNA"
REMARK	GenBank staff at the National Library of Medicine created this entry [NCBI gibbsq 17594] from the original journal article.		/db_xref="taxon:6879"
FEATURES	Location/Qualifiers		<1..258
Source	1..344	gene	/gene="Cex10"
	/organism="Centruroides noxius"	CDS	<1..204
	/mol_type="mRNA"		/gene="Cex10"
	/db_xref="taxon:6878"		/codon_start=1
	/note="Hofmann"		/product="Cex10 neurotoxin precursor"
gene	1..344		/protein_id="P4AT90001_1"
	/gene="Na+ channel-specific toxin 1, Cn1"		/db_xref="GI:51234252"
	/note="Na+ channel-specific toxin differs from that in the paper, Cn1"		/translation="KGDTLVEVNGCKRSCYKLGBNKPNCRKMKHRGSSYGYCYFFG
CDS	9..269		CYCEGLAESTPTWPLNPKSGKX"
ORIGIN		ORIGIN	
		Query Match	79.2%
		Best Local Similarity	87.0%
		Matches	167; Conservative 0; Mismatches 25; Indels 0; Gaps 0;
Qy	1 AAAGACGGTTATCTGTGGACAGACGGCGCAATAACTTGCTGATATTGGGAGAA	Db	1 AAAGACGGTTATCTGTGGACAGACGGCGCAATAACTTGCTGATATTGGGAGAA 60
Db	66 AAGGACGTTATCTGGTGGACAAAGCGTGGAAAGAATGGTATAATTGGAAA	Qy	1 AAGGACGGTTATCTGTGGCTCAAGGGCTGCAAAAGTGTGGTATAATTGGGAGAA 60
Qy	61 AACAAATCTGCATAGGAAATGGCAATGGGAGGTTAATAGGGPATATTGC	Db	121 TAGGGATTTCGCTGGCTATGGGAGGTTGCGATGTAACCCGACTTGACCCCTCT 180
Db	126 ACGATGTTGCTGATAGGAAATGGCAATGGGAGGTTAATAGGGPATATTGC	Qy	121 TATTTTTGGCTGTATGGGAGGTTGCGATGTAACCCGACTTGACCCCTCT 180
Qy	121 TAGGATTGGGTGCTATGGGAGGTTGTCGATGATCACCGACTTGACCCCTCT 180	Db	181 ATAAAGATGC 192
Db	186 TAGGGATTGGGTGCTATGGGAGGTTGTCGATGATCACCGACTTGACCCCTCT 245	Qy	181 ATAAATCATGC 192
Qy	181 ATAAAAAGATGC 192	Db	181 ATAAATCATGC 192
Db	246 ATAAACATGC 257	RESULT 10	
		AY649867	254 bp mRNA linear INV 18-AUG-2004
		LOCUS	Centruroides exilicauda Cex9 neurotoxin precursor (Cex9) mRNA, partial cds.
		DEFINITION	Centruroides exilicauda; Butihidae; Centruroides.
		VERSION	AY649867
		KEYWORDS	Bukaryote; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Butihida; Butihidae; Centruroides.
		SOURCE	1 (bases 1 to 254)
		ORGANISM	Centruroides exilicauda
		REFERENCE	Valdez-Cruz,N.A., Davila,S., Licea,A., Corona,M., Zamudio,P.Z., Authors
		AUTHORS	Valdez-Cruz,N.A., Boyer,L., and Possani,L.D.
		TITLE	Biochemical, genetic and physiological characterization of venom components from two species of scorpions: <i>Centruroides exilicauda</i> Wood and <i>Centruroides sculpturatus</i> Ewing
		JOURNAL	Biochimie (2004) In press
		REFERENCE	2 (bases 1 to 254)
		AUTHORS	Valdez-Cruz,N.A., Davila,S., Licea,A., Corona,M., Zamudio,P.Z., Garcia-Valdes,J., Boyer,L., and Possani,L.D.
		TITLE	Direct Submission
		JOURNAL	Submitted (10-JUN-2004) Molecular Medicine and Bioprocesses, Institute of Biotechnology UNAM, Av. Universidad 2001, Cuernavaca, Mor 62250, Mexico
		FEATURES	Location/Qualifiers
		source	1..254 /organism="Centruroides exilicauda"
			/mol_type="mRNA"
			/db_xref="taxon:6879"
			<1..254
			/gene=Cex9
			<1..204
RESULT 9			
AY649868	258 bp mRNA linear INV 18-AUG-2004		
LOCUS	Centruroides exilicauda Cex10 neurotoxin precursor (Cex10) mRNA, partial cds.		
DEFINITION	Centruroides exilicauda Arachnida; Scorpiones; Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Butihida; Butihidae; Centruroides.		
ACCESSION	AY649868		
VERSION	AY649868..1 GI:51234251		
KEYWORDS	1 (bases 1 to 258)		
SOURCE	Centruroides exilicauda		
ORGANISM	Centruroides exilicauda		
REFERENCE	Valdez-Cruz,N.A., Davila,S., Licea,A., Corona,M., Zamudio,P.Z., Garcia-Valdes,J., Boyer,L., and Possani,L.D.		
AUTHORS	Direct Submission		
TITLE	Submitted (10-JUN-2004) Molecular Medicine and Bioprocesses, Institute of Biotechnology UNAM, Av. Universidad 2001, Cuernavaca, Mor 62250, Mexico		
JOURNAL	Biochimie (2004) In press		
REFERENCE	2 (bases 1 to 258)		
AUTHORS	Valdez-Cruz,N.A., Davila,S., Licea,A., Corona,M., Zamudio,P.Z., Garcia-Valdes,J., Boyer,L., and Possani,L.D.		
TITLE	Direct Submission		
JOURNAL	Submitted (10-JUN-2004) Molecular Medicine and Bioprocesses, Institute of Biotechnology UNAM, Av. Universidad 2001, Cuernavaca,		

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LOCUS	AY351303 192 bp DNA	
DEFINITION	Centruroides noxius isolate CnstrII beta-toxin gene, partial cds.	
ACCESSION	AY351303	
VERSION	AY351303.1	
KEYWORDS	GI:38017464	
SOURCE	Centruroides noxius (Mexican scorpion)	
ORGANISM	Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Buthidae; Buthoidea; Buthidae; Centruroides.	
REFERENCE	Zhu,S.	
AUTHORS		
TITLE	Alignment of beta-toxin nucleotide sequences	
JOURNAL	Unpublished	
FEATURES	REFERENCE 2 (bases 1 to 192)	
source	AUTHORS Zhu,S.	
FEATURES	TITLE Direct Submission	
source	JOURNAL Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van Evenstraat, Leuven, Flanders 3000, Belgium	
FEATURES	Location/Qualifiers 1..192	
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ORIGIN		
Query Match	70.0%; Score 134.4; DB 2; Length 192;	
Best Local Similarity	81.2%; Pred. No. 5.3e-28;	
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Qy	1 AAAGGGTTATCTGTTAAACAGCAGGGTGCATACTGGCTGTATTGGCGAAA	60
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RESULT 11		
LOCUS	AY351302 192 bp DNA	
DEFINITION	Centruroides noxius isolate CnstrI beta-toxin gene, partial cds.	
ACCESSION	AY351302	
VERSION	AY351302.1 GI:38017462	
KEYWORDS		
SOURCE	Centruroides noxius (Mexican scorpion)	
ORGANISM	Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Buthidae; Buthoidea; Buthidae; Centruroides.	
REFERENCE	Zhu,S.	
AUTHORS		
TITLE	Alignment of beta-toxin nucleotide sequences	
JOURNAL	Unpublished	
FEATURES	REFERENCE 2 (bases 1 to 192)	
source	AUTHORS Zhu,S.	
FEATURES	TITLE Direct Submission	
source	JOURNAL Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van Evenstraat, Leuven, Flanders 3000, Belgium	
FEATURES	Location/Qualifiers 1..192	
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LOCUS	AY351302 192 bp DNA	
DEFINITION	Centruroides noxius isolate CnstrI beta-toxin gene, partial cds.	
ACCESSION	AY351302	
VERSION	AY351302.1 GI:38017462	
KEYWORDS		
SOURCE	Centruroides noxius (Mexican scorpion)	
ORGANISM	Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Scorpiones; Buthidae; Buthoidea; Buthidae; Centruroides.	
REFERENCE	Zhu,S.	
AUTHORS		
TITLE	Alignment of beta-toxin nucleotide sequences	
JOURNAL	Unpublished	
FEATURES	REFERENCE 2 (bases 1 to 192)	
source	AUTHORS Zhu,S.	
FEATURES	TITLE Direct Submission	
source	JOURNAL Submitted (24-JUL-2003) Leuven University, Lab of Toxicology, E van Evenstraat, Leuven, Flanders 3000, Belgium	
FEATURES	Location/Qualifiers 1..192	
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ORIGIN							
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Ds	1	AAGAACGGTTATCGTGTAAACACGCAACGGGTGCAAAADAGATTGCTTTGGTGGAA	60				
Qy	61	AACAAATACTGCAATAGGAAATGCCATGGAACTCACATGGAAACCAACCCAGGTTAAT	120				
Ds	61	AACCAAACACTGCATTGGAATGCCAACGGAAACCAAGGGATTACCGGATTGTC	120				
Qy	121	TACGGATTGCGCTATGGAAAGGATTGTCGATAGTAACCGGACTTGCCCCTTCT	180				
Ds	121	TACGGATTGCGCTATGGAAAGGATTGTCGATAGTAACCGGACTTGCCCCTTCT	180				
Qy	181	AATAAAAGATGCTGGCTTGGCATGTTGGAGGTTGGCCGAAGACTACACCGACT	192				
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Search completed: January 21, 2006, 22:05:18
Job time : 1731 secs

November 2005

Published_Applications Nucleic Acid and Published_Applications Amino Acid database searches now generate two sets of results each. The Published_Applications databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Newly published applications will appear in the Published_Applications_New databases; older published applications make up the Published_Applications_Main databases.

Searches run against Nucleic Acid Published_Applications produce two sets of results, with the extensions .rnpbm (Published_Applications_NA_Main) and .rnpbn (Published_Applications_NA_New). Searches run against Amino Acid Published_Applications produce two sets of results, with the extensions .rapbm (Published_Applications_AA_Main) and .rapbn (Published_Applications_AA_New).

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